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THE

SANITARY ACT, 1866,

WITH

NOTES, STATUTES, &c.

BY ROBERT CECIL AUSTIN, Esq.

OF GRAY'S INN, BARRISTER-AT-LAW.

TOGETHER WITH

COPIOUS NOTES AND COMMENTARIES

ON

PUBLIC HEALTH

AND

The Sanitary Laws of England,

CONTAINING CHAPTERS ON

PUBLIC HEALTH AND SANITARY LEGIS-
LATION.
CONSTITUTION OF AUTHORITIES.
SANITARY LEGISLATION.
MEDICAL OFFICERS OF HEALTH.
INSPECTORS OF NUISANCES.
HOUSE-TO-HOUSE VISITATION.
SPECIAL SANITARY SURVEYS.
WATER-SUPPLY—FOUNTAINS, PUMPS AND
WELLS.
DRAINAGE OF HOUSES, TOWNS, AND
DISTRICTS.

CEMETERIES, BURIAL GROUNDS, AND
MORTUARY CHAPELS.
VENTILATION.
OVERCROWDING.
DWELLINGS OF THE WORKING CLASS.
CONTAGIOUS DISEASES.
QUARANTINE LAWS AND THE HEALTH
OF SEAMEN.
HOSPITAL ACCOMMODATION.
SANITARY ASSOCIATIONS.
BATHS, WASHHOUSES, &c.
PARKS, RECREATION GROUNDS, &c.
NOXIOUS TRADES, SMOKE NUISANCE, &c.

AND

SUGGESTIONS FOR A CODE OF SANITARY LAW.

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OF THE SOCIAL SCIENCE ASSOCIATION, &c.

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TO
MEMBERS OF MUNICIPAL AND LOCAL BODIES
WHO ARE
CHARGED WITH THE ADMINISTRATION
OF
The Laws relating to Public Health in England,
THIS WORK
IS
RESPECTFULLY DEDICATED, BY THEIR OBEDIENT SERVANTS,
THE PUBLISHERS.

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PREFACE.

THE importance of the subject treated in this work renders unnecessary any apology for introducing it to the notice of the reader.

Sanitary legislation received but little attention until within the last few years; and amongst the various Acts bearing upon the subject, perhaps no one is so comprehensive in its powers as that which forms the basis of this work—the Sanitary Act of 1866—an Act far from perfect, but in many respects an important step in advance of its predecessors. It is believed that an edition of this Act, with Notes and Commentaries on some of the most prominent topics likely to be brought under discussion in the course of its practical working, will prove serviceable to those who are engaged in the administration of its numerous sections.

While my *collaborateur* has treated this Act from a strictly legal point of view, and endeavoured to simplify it by bringing together various clauses referred to in its

PREFACE.

sections, I have not only ventured to offer suggestions, founded on a long course of medical experience, for the more effective working of our present Sanitary Laws, but have hinted at an improved system of Hygienic Legislation for the future. Finally, in writing these Notes and Commentaries, it has been my most earnest wish to impress on the mind of every good citizen the value and importance of the science and practice of Preventive Medicine. He will remember that economy and prudence alike dictate adhesion to the principle which I have endeavoured to maintain, which was well understood by that people who gave us the brief but comprehensive maxim:—

Salus populi suprema lex.

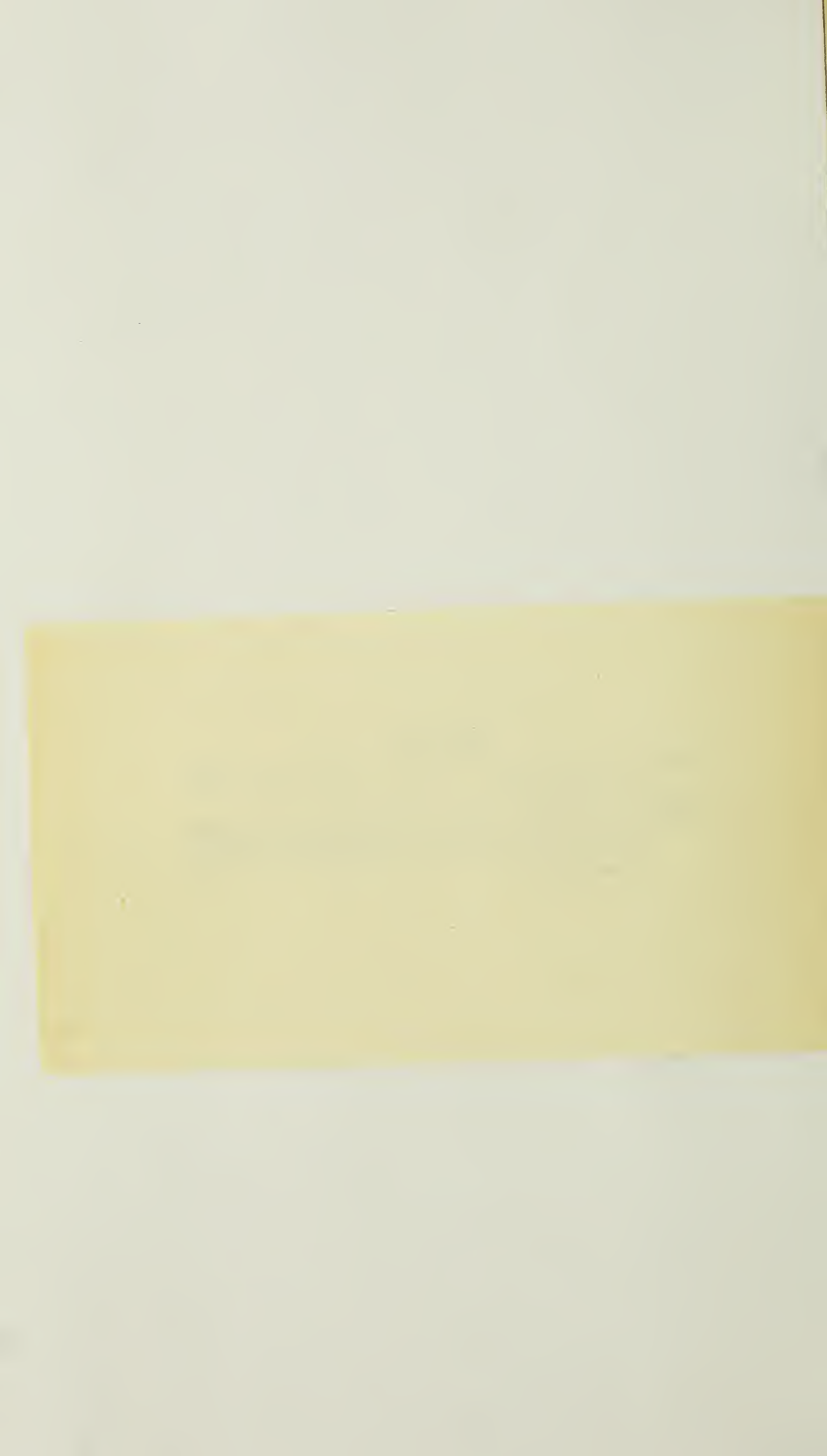
JANUARY, 1867.

W. H.

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ERRATA.

Page 100, line 17 from bottom, *for* "shaped plan," *read* "H shaped plan."

Page 115, line 23 from bottom, *for* "in Dr. H. Dobell's report of the Sanitary Condition of Massachusetts," *read* "in the work of Dr. H. Dobell, in the report of the Sanitary Condition," &c.



SUMMARY OF THE ACT.

In this portion of the work it is proposed to give, in an easily intelligible form, prominence to those parts of the "Sanitary Act, 1866," (29 & 30 Vict., cap. 90) which refer to provisions of a novel and interesting character. It is not intended to deal analytically with the sections which relate exclusively to Ireland. The provisions of the Act are, in many particulars, exceptional, and such as must be interesting to all classes of the community. We, however, desire specially to direct to them the attention of those who, as "Local Authorities," officers of health, or inspectors of nuisances, are liable to be charged with the execution of the statute. The Act received the royal assent on the 7th August, 1866. Its number in the statute book is the 29 & 30 Vict., c. 90.

Section 1 gives its short title—"The Sanitary Act, 1866."

Section 4 gives power to any sewer authority (that is, as the case may be, the town council, or the commissioners under a local Act, or the vestry) to form a committee of its own members and others to act on its behalf.

Section 5 gives to the sewer authority in certain cases the power of forming any part of its district into a special drainage district, and of levying a rate for sewage purposes within such district.

Section 6 gives to any number of the inhabitants of such district (not being less than 20) the power of appealing against the formation of such special drainage district to a Secretary of State, who, after due inquiry, may, if he think proper, annul or modify the decision of the sewer authority.

Section 8 gives power to any owner or occupier within the district of the sewer authority to empty his drains in a proper manner into the drains of the sewer authority.

Section 9 gives power to any owner or occupier outside the district of the sewer authority to empty his drains into the drains of the sewer authority, under such conditions as may be agreed upon; and in case of dispute, the matter is to be settled by two magistrates, or by arbitration.

Section 10 empowers the sewer authority to call upon any person living within 100 feet of any public sewer to make a drain from his house to the public sewer; if the distance is more than 100 feet, it may call upon him to empty his drains into a covered cesspool. If such person fail to comply with such requisition, the work may be done by the sewer authority, and the expenses may be recovered in a summary manner.

Section 11 gives to the sewer authority power to supply its district with water by digging wells, making reservoirs, and doing any other necessary act.

Section 16 gives power to the chief officer of police within the district of any nuisance authority, by direction of a Secretary of State, to deal with nuisances, if the nuisance authority is proved to have neglected its duty.

The officer of police may not, however, enter any house for this purpose without either the consent of the occupier or a magistrate's warrant.

Section 19 adds to the list of legal nuisances—(1) any house or part of a house so overcrowded as to be dangerous to the health of the inmates; (2) any dirty, ill-ventilated or overcrowded factory or workshop; (3) any fireplace or furnace (not being the chimney of a private dwelling-house) not consuming its own smoke, so far as is practicable.

Section 20 imposes upon the nuisance authority the duty of inspecting its district from time to time, with a view to the abatement of nuisances.

Section 21 provides for the service of notice upon owner or occupier previous to the institution of proceedings under section 12 of the 18 & 19 Vict., c. 121.

Section 22 gives power to the nuisance authority, in certain cases, to order an owner or occupier to cleanse and disinfect his house and anything in it, under a penalty of 10s. a day for disobedience; and allows the nuisance authority, in case of default, to do the work itself and recover the expenses from the owner or occupier. Where, in the opinion of the nuisance authority, the owner or occupier is unable, from poverty or otherwise, to cleanse and disinfect his house, it may, at its own expense, and with the consent of the owner or occupier, do the work itself.

Section 23 empowers the nuisance authority to provide means of disinfection, and to disinfect, free of charge, clothing, &c., brought for the purpose.

Section 24 empowers the nuisance authority to maintain carriages for the conveyance to a hospital, or to their own homes, of persons suffering under any contagious or infectious disease.

Section 25 exposes to a penalty, not exceeding £5, any person who, without notice to the owner or driver, enters any public conveyance while suffering under any dangerous or infectious disorder. No owner or driver need carry any such person without being first paid all losses and expenses.

Section 26 empowers any magistrate, under certain circumstances, to order the conveyance to a hospital of any person suffering under any dangerous, contagious, or infectious disease, who is without proper lodging or accommodation, or lodged in a room occupied by more than one family, or who is on board any ship or vessel.

Sections 27 & 28 empower the nuisance authority to provide a proper place for the reception of the corpses of persons who have died of any contagious or infectious disease, and of corpses awaiting a *post-mortem* examination.

Section 29 empowers the nuisance authority, with the consent of the Privy Council, to make rules for removing to, and keeping in a hospital, any person arriving within its district in a ship or boat and suffering under a contagious or infectious disorder.

Section 30 extends the power of the nuisance authority in certain cases to ships and boats not lying within its district.

Section 31 provides for entry on the part of nuisance authority at any hour during which the nuisance is being caused; and for the continuance in force, until the abatement of the nuisance, of justices order, issued under section 11 of 18 & 19 Vict., c. 121.

Section 32 brings ships, not being the ships of Her Majesty or any foreign government, within the jurisdiction of the nuisance authority, and constitutes the master, or other officer in charge, the "occupier" for the purpose of the Nuisances Removal Acts.

Section 33 provides for the raising of money in parishes, for only part of which the guardians are the nuisance authority.

Section 34 empowers the nuisance authority to require payment of costs or expenses from owner or occupier, and permits the deduction of the amount of such costs or expenses from the rent paid by the occupier.

Section 35 empowers the nuisance authority in certain cases to make regulations for (1) limiting the number of persons who may occupy a house or part of a house which is let in lodgings; (2) the

registration of such houses; (3) inspecting and cleansing such houses; (4) providing privies and other appliances and means of cleanliness for such houses, and for cleansing and ventilating the common passages and staircases; (5) cleansing and limewhiting such premises.

Section 36 provides for the temporary or permanent closing of such houses under certain circumstances; *i.e.*, where two convictions have occurred within three months.

Section 37 gives to the sewer authority (in the metropolis, to the nuisance authority) power to provide district hospitals or temporary places for the reception of the sick.

Section 38 exposes to a penalty not exceeding £5 any person suffering from any dangerous infectious disorder who wilfully exposes himself, without proper precaution against spreading such disorder, in any street, public place, or public conveyance, and to a like penalty the owner or driver of any public conveyance who knowingly conveys such sufferer, and does not immediately afterwards provide for the disinfection of such conveyance.

Section 39 exposes to a penalty not exceeding £20 any person who knowingly lets a house or part of a house or a room in which any person suffering from any dangerous infectious disorder has been, without first having it, and all articles therein, disinfected to the satisfaction of a medical man.

Section 40 authorises the Privy Council to require that in cases where two or more boards of guardians of the poor or local authorities have jurisdiction,* they shall act together for the purposes of the Diseases Prevention Act, 1865, also to prescribe the mode of such joint action, and of defraying the cost thereof.

Section 41 contains provision as to allegation of membership of the same family in the case of proceedings under the Common Lodging Houses Act, 1851.

Section 42 extends to the whole of England and Ireland (with the exception of such places as are regulated by any other Act) the provisions of section 67 of 11 & 12 Vict., c. 63.

Section 43 authorises local boards in certain cases, *i.e.*, when executing the Local Government Act, 1858, to adopt the Baths and Washhouses Acts, and to defray the consequent expenses out of the general district rates.

Section 44 empowers burial boards, when their districts are conter-

* See note to section, page 41, *post*.

minous with the districts of local boards of health, to transfer their powers to the local boards.

Section 45 exposes to a penalty, not exceeding £5, any person wilfully damaging works belonging to any local board, sewer authority, or nuisance authority.

Section 46 incorporates local boards, sewer authorities, and nuisance authorities, enables them to sue and be sued as such, and empowers them to hold lands in their characters as such authorities, respectively.

Section 47 extends the authority of the Secretary of State in regard to the making of provisional orders respecting lands under section 75 of the 21 & 22 Vict., c. 98.

Section 48 provides for the representation of the local authority in legal proceedings by its clerk, or by any officer or member duly authorised by such authority.

Section 49 empowers the Secretary of State to institute proceedings in cases in which the sewer authority has made default in providing sufficient sewers, supply of water, or in abating nuisances or enforcing the provisions of the Local Government Act.

Section 50 provides for the summary recovery of expenses incurred by the local authority in the supply of water.

Section 51 empowers the justices or court having jurisdiction to reduce penalties imposed by 6 Geo. IV., c. 78.

Section 52 brings outward-bound and coasting vessels within the provisions of the Quarantine Act, and of all orders issued by the Privy Council under that Act.

Section 53 exposes to a penalty of 20s. per day any person who does not at proper intervals, after due notice, remove manure and other refuse matter from mews, stables, or other premises.

Section 54 provides for the recovery of penalties under the Act, and of expenses directed to be recovered in a summary manner.

Section 55 makes cumulative the powers conferred by the Act.

Sections 56 to 69 inclusive, which constitute part 4 of the Act, apply it to Ireland, making the requisite alterations in the machinery for its practical working. With this portion of the Act we do not propose to deal.

29 & 30 VICT. CAP. 90.

AN ACT

TO

AMEND THE LAW RELATING TO THE PUBLIC HEALTH.

[7TH AUGUST, 1866.]

WHEREAS it is expedient to amend the law relating to public health: Be it enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

Preliminary.

1. This Act may be cited for all purposes as The Short title of Act. Sanitary Act, 1866.

PART I.

Amendment of the Sewage Utilization Act, 1865.

2. "Sewer Authority" in this Act shall have the Definition of "Sewer Authority." same meaning as it has in the Sewage Utilization Act, 1865.*

* By the Sewage Utilization Act, 1865, the following are defined as "Sewer Authorities" in the undermentioned places in England and Wales:—

<i>Places.</i>	<i>Sewer Authorities.</i>
In boroughs, with the exception of the boroughs of Oxford and Cambridge, not within the jurisdiction of a local board.	The mayor, alderman, and burgesses acting by the council.
The boroughs of Oxford and Cambridge, and any town or	The commissioners, trustees, or other persons intrusted

"Lord Lieutenant in Council."

The words "Lord Lieutenant in Council" shall mean in this Act the lord lieutenant or any chief governor or chief governors in *Ireland* acting by and with the consent of Her Majesty's Privy Council in *Ireland*.

This part to be construed with 28 & 29 Vict. c. 75.

3. This part of this Act shall be construed as one with the Sewage Utilization Act, 1865, and the expression "The Sewage Utilization Act, 1865," as used in this or any other Act of Parliament or other document, shall mean the said Sewage Utilization Act, 1865, as amended by this Act.

Power to sewer authority to form committee of its own members and others.

4. Any sewer authority may, from time to time, at any meeting specially convened for the purpose, form one or more committee or committees consisting wholly of its own members, or partly of its own members and partly of such other persons contributing to the rate or fund out of which the expenses incurred by such authority are paid, and qualified in such other manner as the sewer authority may determine, and may delegate, with or without conditions or restrictions, to any committee so formed, all or any powers of such sewer authority, and may from time to time revoke, add to, or alter any powers so given to a committee.

Places.

place not included within the above descriptions, and under the jurisdiction of commissioners, trustees, or other persons intrusted by any local Act with powers of improving, cleansing, lighting, or paving any town.

In parishes not within the jurisdiction of any sewer authority hereinbefore mentioned, and in which a rate is levied for the maintenance of the poor.

Sewer Authorities.

by any local Act of Parliament with powers of improving, cleansing, lighting, or paving the town.

~~The vestry~~, select vestry, or other body of persons acting by virtue of any Act of Parliament, prescription, custom, or otherwise, as or instead of a vestry or select vestry.

A committee may elect a chairman of its meetings. If no chairman is elected, or if the chairman elected is not present at the time appointed for holding the same, the members present shall choose one of their number to be chairman of such meeting. A committee may meet and adjourn as it thinks proper. The quorum of a committee shall consist of such number of members as may be prescribed by the sewer authority that appointed it, or, if no number be prescribed, of three members. Every question at a meeting shall be determined by a majority of votes of the members present, and voting on that question; and in case of an equal division of votes the chairman shall have a second or casting vote.

The proceedings of a committee shall not be invalidated by any vacancy or vacancies amongst its members.

A sewer authority may from time to time add to or diminish the number of the members or otherwise alter the constitution of any committee formed by it, or dissolve any committee.

A committee of the sewer authority shall be deemed to be the agents of that authority, and the appointment of such committee shall not relieve the sewer authority from any obligation imposed on it by Act of Parliament or otherwise.

5. Where the sewer authority of a district is a vestry, select vestry, or other body of persons acting by virtue of any Act of Parliament, prescription, custom, or otherwise as or instead of a vestry or select vestry,* it may, by resolution at any meeting convened for the purpose after twenty-one clear days notice affixed to the places where parochial notices are usually affixed in its district, form any part of

Formation
of special
drainage
district.

* *i. e.*, in parishes not within the jurisdiction of any "sewer authority" mentioned in the first portion of the schedule to the Sewage Utilization Act, 1865. (See note, page 7, *ante*.)

such district into a special drainage district for the purposes of the Sewage Utilization Act, and thereupon such special drainage district shall, for the purposes of the Sewage Utilization Act, 1865, and the powers therein conferred, be deemed to be a parish in which a rate is levied for the maintenance of the poor, and of which a vestry is the sewer authority, subject, as respects any meeting* of the inhabitants thereof in vestry, to the Act of the fifty-eighth year of the reign of King *George the Third*, chapter sixty-nine, and the Acts amending the same; and any officer or officers who may from time to time be appointed by the sewer authority of such special drainage district for the purpose shall have within that district all the powers of levying a rate for the purpose of defraying the expense of carrying the said Sewage Utilization Act into effect that they would have if such district were such parish as aforesaid, and such rate were a rate for the relief of the poor, and they were duly appointed overseers of such parish.

Appeal
against con-
stitution of
special
drainage
district.

6. Where the sewer authority of any place has formed a special drainage district in pursuance of this Act, if any number of the inhabitants of such place, not being less than twenty, feel aggrieved by the formation of such district, or desire any modification in its boundaries, they may, by petition in writing under their hands, bring their case under the consideration of one of Her Majesty's principal Secretaries of State, and the said Secretary of State may, after due investigation, annul the formation of the special drainage district, or modify its boundaries as he thinks just.

* Section 3 of the statute 1 Vict. c. 45, prescribes that notice of proposed vestry meeting shall be signed by one of the churchwardens, the rector, vicar, or curate of the parish, or by an overseer of the poor of the parish.

7. A copy of the resolution of a sewer authority forming a special drainage district shall be published by affixing a notice thereof to the church door of the parish in which the district is situate, or of the adjoining parish if there be no church in the said parish, and by advertising notice thereof in some newspaper published or circulating in the county in which such district is situate ; and the production of a newspaper containing such advertisement, or a certificate under the hand of the clerk or other officer performing the duties of clerk for the time being of the sewer authority which passed the resolution forming the district, shall be evidence of the formation of such district, and after the expiration of three months from the date of the resolution forming the district such district shall be presumed to have been duly formed, and no objection to the formation thereof shall be entertained in any legal proceedings whatever.

Evidence of formation of special drainage district.

8. Any owner or occupier of premises within the district of a sewer authority shall be entitled to cause his drains to empty into the sewers of that authority on condition of his giving such notice as may be required by that authority of his intention so to do, and of complying with the regulations of that authority in respect of the mode in which the communications between such drains and sewers are to be made, and subject to the control of any person who may be appointed by the sewer authority to superintend the making of such communications ; but any person causing any drain to empty into any sewer of a sewer authority without complying with the provisions of this section shall incur a penalty not exceeding twenty pounds,* and it shall be lawful for the sewer authority to close any communication

Power to drain into sewers of sewer authority.

* As to recovery of penalties, see section 54, page 48, *post*.

between a drain and sewer made in contravention of this section, and to recover in a summary manner from the person so offending any expenses incurred by them under this section.

Use of
sewers by
persons
beyond dis-
trict.

9. Any owner or occupier of premises beyond the limits of the district of a sewer authority may cause any sewer or drain from such premises to communicate with any sewer of the sewer authority upon such terms and conditions as may be agreed upon between such owner or occupier and such sewer authority, or in case of dispute may, at the option of the owner or occupier, be settled by two justices or by arbitration in manner provided by The Public Health Act, 1848,* in respect of matters by that

* (11 & 12 Vict., c. 63,) sect. 123.—And be it enacted, that in case of dispute as to the amount of any compensation to be made under the provisions of this Act (except where the mode of determining the same is specially provided for), and in case of any matter which by this Act is authorized or directed to be settled by arbitration, then, unless both parties concur in the appointment of a single arbitrator, each party, on the request of the other, shall appoint an arbitrator, to whom the matter shall be referred; and every such appointment when made on the behalf of the local board of health shall (in the case of a non-corporate district) be under their seal and the hands of any five or more of their number, or under the common seal in case of a corporate district, and on the behalf of any other party under his hand, or if such party be a corporation aggregate under the common seal thereof; and such appointment shall be delivered to the arbitrators, and shall be deemed a submission to arbitration by the parties making the same; and after the making of any such appointment the same shall not be revoked without the consent of both parties, nor shall the death of either party operate as a revocation; and if for the space of fourteen days after any such matter shall have arisen, and notice in writing by one party who has himself duly appointed an arbitrator to the other party, stating the matter to be referred, and accompanied by a copy of such appointment, the party to whom notice is given fail to appoint an arbitrator, the arbitrator appointed by the party giving the notice shall be deemed to be appointed by and shall act on behalf of both parties; and the award of any

Act authorized or directed to be settled by arbitration.

arbitrator or arbitrators appointed in pursuance of this act shall be binding, final, and conclusive upon all persons, and to all intents and purposes whatsoever.

Sect. 124.—And be it enacted, that if before the determination of any matter so referred any arbitrator die, or refuse or become incapable to act, the party by whom such arbitrator was appointed may appoint in writing another person in his stead; and if he fail so to do for the space of seven days after notice in writing from the other party in that behalf the remaining arbitrator may proceed *ex parte*; and every arbitrator so appointed shall have the same powers and authorities as were vested in the arbitrator in whose stead the appointment is made; and in case a single arbitrator die, or become incapable to act, before the making of his award, or fail to make his award within twenty one days after his appointment, or within such extended time, if any, as shall have been duly appointed by him for that purpose, the matters referred to him shall be again referred to arbitration under the provisions of this Act, as if no former reference had been made.

Sect. 125.—And be it enacted, that in case there be more than one arbitrator, the arbitrators shall, before they enter upon the reference, appoint by writing under their hands an umpire, and if the person appointed to be umpire die, or become incapable to act, the arbitrator shall forthwith appoint another person in his stead; and in case the arbitrators neglect or refuse to appoint an umpire for seven days after being requested so to do by any party to the arbitration, the court of general or quarter sessions shall, on the application of any such party, appoint an umpire; and the award of the umpire shall be binding, final, and conclusive upon all persons and to all intents and purposes whatsoever; and in case the arbitrators fail to make their award within twenty one days after the day on which the last of them was appointed, or within such extended time, if any, as shall have been duly appointed by them for that purpose, the matters referred shall be determined by the umpire; and the provisions of this act with respect to the time for making an award, and with respect to extending to the same in the case of a single arbitrator, shall apply to an umpirage.

Sect. 126.—Provided always, and be it enacted, that the time for making an award under this Act shall not be extended beyond the period of three months from the date of the submission or from the day on which the umpire shall have been appointed (as the case may be).

As to the
drainage of
houses.

10. If a dwelling house within the district of a sewer authority is without a drain or without such drain as is sufficient for effectual drainage, the sewer authority may by notice require the owner of such house within a reasonable time therein specified to make a sufficient drain emptying into any sewer which the sewer authority is entitled to use, and with which the owner is entitled to make a communication, so that such sewer be not more than one hundred feet from the site of the house of such owner; but if no such means of drainage are within that distance then emptying into such covered cesspool or other place not being under any house, as the sewer authority directs; and if the person on whom such notice is served fails to comply with the same, the sewer authority may itself, at the expiration of the time specified in the notice, do the work required, and the expenses incurred by it in so doing

Sect. 127.—And be it enacted, that any arbitrator, arbitrators, or umpire, appointed by virtue of this Act, may require the production of such documents in the possession or power of either party as they or he may think necessary for determining the matters referred, and may examine the parties or their witnesses on oath; and the costs of and consequent upon the reference shall be in the discretion of the arbitrator or arbitrators, or of the umpire (in case the matters referred are determined by an umpire under the power hereinbefore contained in that behalf); and any submission to arbitration under the provisions of this Act may be made a rule of any of the superior courts, on the application of any party thereto.

Sect. 128.—And be it enacted that before any arbitrator or umpire shall enter upon any such reference as aforesaid he shall make and subscribe the following declaration before a justice of the peace; (that is to say,)

“I, *A. B.*, do solemnly and sincerely declare, that I will faithfully and honestly, and to the best of my skill and ability, hear and determine the matters referred to me under the Public Health Act, 1848. *A. B.*”

And such declaration shall be annexed to the award when made; and if any arbitrator or umpire shall wilfully act contrary to such declaration he shall be guilty of a misdemeanour,

may be recovered from such owner in a summary manner.*

11. A sewer authority within its district shall have the same powers in relation to the supply of water that a local board has within its district, and the provisions of the sections hereinafter mentioned shall apply accordingly in the same manner as if in such provisions "sewer authority" were substituted for "local board of health" or "local board," and the district in such provisions mentioned were the district of the sewer authority and not the district of the local board; that is to say, the sections numbered from seventy-five to eighty, both inclusive, of The Public Health Act, 1848,† sec-

Supply of water to district of sewer authority.

* As to summary recovery of expenses, see section 54, p. 48, *post*.

† (11 & 12 Vict., c. 63) sect. 75.—And be it enacted, that the local board of health may provide their district with such a supply of water as may be proper and sufficient for the purposes of this Act and for private use to the extent required by this Act; and for those purposes or any of them the said local board may from time to time, with the approval of the general board of health, contract with any person whomsoever, or purchase, take upon lease, hire, construct, lay down, maintain such waterworks, and do and execute all such works, matters, and things as shall be necessary and proper; and any waterworks company may contract with the local board of health to supply water for the purposes of this Act in any manner whatsoever, or may sell and dispose of or lease their waterworks to any local board of health willing to take the same; and the said local board may provide and keep in any waterworks constructed or laid down by them under the powers of this Act a supply of pure and wholesome water, and the water so supplied may be constantly laid on at such pressure as will carry the same to the top story of the highest dwelling house within the district supplied: provided always that before constructing or laying down any waterworks under the powers of this Act within any limits within, for, or in respect of which any waterworks company shall have been established for supplying water, the said local board shall give notice in writing to every waterworks company within whose limits the said local board may be desirous of laying on or supplying water, stating the purposes for and (as far as may be practicable) the extent to which water is required by the said local board; and it shall not be lawful for the said local board to

tions fifty-one, fifty-two, and fifty-three of The Local

construct or lay down any waterworks within such limits, if and so long as any such company shall be able and willing to lay on water proper and sufficient for all reasonable purposes for which it is required by the said local board, and upon such terms as shall be certified to be reasonable by the general board of health, after inquiry and report by a superintending inspector in this behalf, or (in case such company shall be dissatisfied with such certificate) upon such terms as shall be settled by arbitration in the manner provided by this Act; and in case any difference shall arise as to whether the water which any such company is able and willing to supply or lay on is proper and sufficient for the purposes for which it is required by the said local board, or whether the purposes for which it is required are reasonable, the same shall be settled by arbitration in the manner provided by this Act.

Sect. 76.—And be it enacted, that if upon the report of the surveyor it appear to the local board of health that any house is without a proper supply of water, and that such a supply of water can be furnished thereto at a rate not exceeding twopence per week, the said local board shall give notice in writing to the occupier requiring him, within a time to be specified therein, to obtain such supply, and to do all such works as may be necessary for that purpose; and if such notice be not complied with, the said local board may, if they shall think fit, do such works and obtain such supply accordingly, and make and levy water rates upon the premises, not exceeding in the whole the rate of twopence per week, in manner hereinafter provided, as if the owner or occupier of the premises had demanded a supply of water, and were willing to pay water rates for the same; and the expenses incurred by them in doing such works as last aforesaid shall be private improvement expenses, and be recoverable as such in the manner hereinafter provided.

Sect. 77.—And be it enacted, that the local board of health may, if they shall think fit, supply water from any waterworks purchased or constructed by them under this Act to any public baths or wash houses, or for trading or manufacturing purposes, upon such terms and conditions as may be agreed upon between the said local board and the persons desirous of being so supplied.

Sect. 78.—And be it enacted, that the local board of health may cause all existing public cisterns, pumps, wells, reservoirs, conduits, aqueducts, and works used for the gratuitous supply of water to the inhabitants to be continued, maintained, and plentifully supplied with water, or they may substitute, continue, maintain, and plentifully supply with water other such works equally convenient; and the said local board may, if they shall think fit, construct any number of new cisterns, pumps, wells,

conduits, and works for the gratuitous supply of any public baths or wash houses established otherwise than for private profit or supported out of any poor or borough rates.

Sect. 79.—And be it enacted, that whosoever shall wilfully or carelessly break, injure, or open any lock, cock, waste pipe, or waterworks belonging to or under the management or control of the local board of health, or constructed, continued, or maintained under this Act, in any parish or place in which there shall be no local board of health, or shall unlawfully flush, draw off, divert, or take water from any waterworks belonging to or under the management or control of the said local board, or so constructed, continued, or maintained in any such parish or place, or from any waters or streams by which such waterworks are supplied, or shall wilfully or negligently waste or cause to be wasted any water with which he is supplied by the said local board, shall for every such offence forfeit a sum not exceeding five pounds, and a further penalty of twenty shillings for each day whilst the offence is continued after written notice in that behalf, which penalties shall be paid to the said local board, or, in the case of a parish or place in which there shall be no local board of health, to the churchwardens and overseers of the poor, to be by them applied in aid of the rate for the relief of the poor of such parish or place: provided always, that nothing herein contained shall prevent the owner or occupier of any premises through or by which any streams may flow from using the same as they would have been entitled to do if this Act had not been passed.

Sect. 80.—And be it enacted, that whosoever shall bathe in any stream, reservoir, conduit, aqueduct, or other waterworks belonging to or under the management or control of the local board of health, or in any reservoir, conduit, aqueduct, or other waterworks constructed, continued, or maintained under this Act in any parish or place in which there shall be no local board of health, or shall wash, cleanse, throw, or cause to enter therein any animal, rubbish, filth, stuff, or thing of any kind whatsoever, or shall cause or permit or suffer to run or be brought therein the water of any sink, sewer, drain, engine, or boiler, or other filthy, unwholesome, or improper water, or shall do anything whatsoever whereby any water belonging to the said local board or under their management or control, or whereby any water of or contained in any such reservoir, conduit, aqueduct, or other waterworks so constructed, continued, or maintained in any such parish or place as aforesaid shall be fouled, shall for every such offence forfeit a sum not exceeding five pounds, and a further sum of twenty shillings for each day whilst the offence is continued after written notice in that behalf; which penalties shall be paid to the said local board, or, in the case of a parish or

Government Act, 1858,* and section twenty of The

place in which there shall be no local board of health, to the churchwardens and overseers of the poor, to be by them applied in aid of the rate for the relief of the poor of such parish or place; and whosoever, being proprietor of any gasworks, or being engaged or employed in the manufacture or supply of gas, causes or suffers to be brought or to flow into any stream, reservoir, conduit, aqueduct, or waterworks belonging to or under the management or control of the said local board, or into any drain or pipe communicating therewith, any washing or other substance produced in the manufacture or supply of gas, or shall wilfully do any act connected with the manufacture or supply of gas whereby the water in any such stream, reservoir, aqueduct, or waterworks is fouled, shall forfeit to the said local board for every such offence the sum of two hundred pounds, and, after the expiration of twenty four hours notice in writing from them in this behalf, a further sum of twenty pounds for every day during which the offence is continued, or during the continuance of the act whereby the water is fouled; and every such penalty shall be recoverable, with full costs of suit, by action of debt; and if any water supplied by, belonging to, or under the management or control of the said local board, be fouled in any manner by the gas of any such proprietor or person as last aforesaid, he shall forfeit to the local board for every such offence a sum not exceeding twenty pounds, and a further sum not exceeding ten pounds for every day whilst the offence is continued after the expiration of twenty four hours notice in writing from the said local board in this behalf; and for the purpose of ascertaining whether such water is fouled by the gas of any such proprietor or person the said local board may lay open and examine any pipes, conduits, and works from which the gas is supposed to escape; provided that before beginning so to do twenty four hours notice in writing be given to the person to whom such pipes, conduits, or works belong, or under whose management or control they may be, of the time at which the examination is intended to be made; and if upon such examination it appear that the water has been fouled by the gas proceeding from or contained in the pipes, conduits, or works examined, the expenses of the examination shall be paid and borne by the person to whom such pipes, conduits, or works belong, or under whose management or control they may be, and be recoverable from him in the summary manner hereinafter provided; but if it appear that the water has not been so fouled, then such expenses, and all damages occasioned by the examination, shall be paid by the said local board out of the general district rates levied under this Act, and be recoverable from them in the summary manner hereinafter provided.

* (21 & 22 Vict. c. 98) sect. 51.—The powers given to local

Local Government Act, 1858, Amendment Act, 1861.*

The sewer authority may, if it think it expedient so to do, provide a supply of water for the use of the inhabitants of the district by

- (1.) Digging wells ;
- (2.) Making and maintaining reservoirs ;
- (3.) Doing any other necessary acts ;

and they may themselves furnish the same, or contract with any other persons or companies to furnish the same : provided always, that no land be purchased or taken under this clause except by

boards by the seventy-sixth section of the Public Health Act, 1848, shall extend to any house within their district to which a supply of water can be provided at an expense not exceeding the water rate authorized by the said Act or any local act in force in the district, and notices under that section shall be served on owners of houses so supplied instead of occupiers, and expenses incurred under that section shall be recoverable from such owners.

Sect. 52.—Where the local board supply water to their district they shall have the same power for carrying water mains within the district as they have for carrying sewers by the law in force for the time being.

Sect. 53.—It shall be lawful for any local board of health absolutely to purchase, and for the directors for the time being of any waterworks company or market company, by and with the authority of three-fifths of the shareholders for the time being in such company who may be present, either personally or by proxy, at some general meeting of the company specially convened for the purpose, to sell, convey, and transfer unto any local of health, upon such terms as shall be mutually agreed upon between the company and the local board, all the rights, powers, and privileges, and all or any of the lands and premises, works, matters, and things, which at the time of such purchase shall be the property of the company, but subject to all mortgages, contracts, or liabilities to which the same shall be then subject.

* (24 & 25 Vict., c. 61) sect. 20.—In districts where no water companies are established by Act of Parliament all local boards may make agreements for the supply of water to persons on such terms as may be agreed upon between the local board and the persons receiving such supply, and shall have the same powers for recovering water rents accruing under such agreements as they have for the recovery of water rates by the law in force for the time being.

agreement or in manner provided by The Local Government Act, 1858.*

Expenses of
sewer au-
thority in
supplying
water.

12. Any expenses incurred by a sewer authority in or about the supply of water to its district, and in carrying into effect the provisions hereinbefore in that behalf mentioned, shall be deemed to be

* Section 75 of the Local Government Act, 1858 (21 & 22 Vict., c. 98), lays down the following regulations in regard to the purchase of land by local boards;

- (1) The Lands Clauses Consolidation Act, 1845, shall be incorporated with this Act, except the provisions relating to access to the special Act :
- (2) The local board, before putting in force any of the powers of the said Lands Clauses Consolidation Act with respect to the purchase and taking of land otherwise than by agreement, shall

Publish once at the least in each of three consecutive weeks in the month of *November* in some newspaper circulated in the district or some part of the district within which such local board has jurisdiction is situate, an advertisement describing shortly the nature of the undertaking in respect of which the land is proposed to be taken, naming a place where a plan of the proposed undertaking may be seen at all reasonable hours, and stating the quantity of land that they require ; and shall further in the month of *December*

Serve a notice in manner hereinafter mentioned on every owner or reputed owner, lessee or reputed lessee and occupier of such land, defining in each case the particular land intended to be taken, and requiring an answer, stating whether the person so served assents, dissents, or is neuter in respect of taking such land ; such notice to be served

By delivery of the same personally on the party required to be served, or, if such party is absent or abroad, to his agent ;

By leaving the same at the usual or last known place of abode of such party as aforesaid ; or

By forwarding the same by post in a registered letter addressed to the usual or last known place of abode of such party :

- (3) Upon compliance with the provisions hereinbefore contained with respect to advertisements and notices, the local board may, if they shall think fit, present a petition under their seal to one of Her Majesty's principal Secretaries of State : The petition shall state the land intended to be taken, and the purposes for which it is

expenses incurred by that authority in carrying into

required, and the names of the owners, lessees, and occupiers of land who have assented, dissented, or are neuter in respect of the taking such land, or who have returned no answer to the notice : It shall pray that the local board may, with reference to such land, be allowed to put in force the powers of the said Lands Clauses Consolidation Act with respect to the purchase and taking of land otherwise than by agreement, and such prayer shall be supported by such evidence as the Secretary of State requires :

- (4) Upon the receipt of such petition, and upon due proof of the proper advertisements having been published and notices served, the Secretary of State shall take such petition into consideration, and may either dismiss the same, or direct an inquiry in the district in which the land is situate, or otherwise inquire as to the propriety of assenting to the prayer of such petition ; but until such inquiry has been made in the district, after such notice as may be directed by the Secretary of State, no provisional order shall be made affecting any land, without the consent of the owners, lesses, and occupiers thereof :
- (5) After the completion of the inquiry as last aforesaid, the Secretary of State may, by provisional order, empower the local board to put in force with reference to the land referred to in such order the powers of the said Lands Clauses Consolidation Act with respect to the purchase and taking of land otherwise than by agreement, or any of them, and either absolutely or with such conditions and modifications as he may think fit, and it shall be the duty of the local board to serve a copy of any order so made in the manner and upon the person in which and upon whom notices in respect of such land are hereinbefore required to be served :
- (6) No provisional order so made shall be of any validity unless the same has been confirmed by Act of Parliament, and it shall be lawful for the Secretary of State as soon as conveniently may be to obtain such confirmation, and the Act confirming such order shall be deemed to be a public general Act of Parliament :
- (7) All costs, charges, and expenses incurred by the said Secretary of State in relation to any such provisional order as last aforesaid shall, to such amount as the commissioners of Her Majesty's treasury think proper to direct, become a charge upon the general district rates levied in the district to which such order relates, and be repaid to the said commissioners of Her Majesty's treasury

effect The Sewage Utilization Act, 1865, and be payable accordingly.*

Wells, &c.
belonging to
any place
vested in
sewer au-
thority, &c.
23 & 24 Vict.
c. 77, s. 7.

13. All property in wells, fountains, and pumps, and powers in relation thereto, vested in the nuisance authority by the seventh section† of the Act passed in the session of the twenty-third and twenty-fourth years of the reign of Her present Majesty, chapter seventy-seven, shall vest in the sewer authority, where the sewer authority supplies water to its district.

by annual instalments not exceeding five, together with interest after the yearly rate of five pounds in the hundred, to be computed from the date of any such last-mentioned order, upon so much of the principal sum due in respect of the said costs, charges, and expenses as may from time to time remain unpaid.

* By the Sewage Utilization Act, 1865 (28 & 29 Vict. c. 75), expenses incurred by the "sewer authority" are to be paid out of the following funds:—

In boroughs, with the exception of the boroughs of Oxford and Cambridge, not within the jurisdiction of a local board—out of the borough fund or borough rate:

In the boroughs of Oxford and Cambridge, and any town or place not included within the above descriptions, and under the jurisdiction of commissioners, trustees, or other persons entrusted by any local act with powers of improving, cleansing, lighting, or paving any town—out of any rate leviable by the commissioners, trustees, or other persons.

In parishes not within the jurisdiction of any sewer authority hereinbefore mentioned, and in which a rate is levied for the maintenance of the poor—out of the poor rate.

† (23 & 24 Vict. c. 77) Nuisances Removal and Diseases Prevention Act, sect. 7.—All wells, fountains, and pumps provided under section fifty of "The Public Health Act, 1848," or otherwise for the use of the inhabitants of any place,

And not being the property of or vested in any person or corporation other than officers of such place,

Shall be vested in the local authority under this Act for such place, who shall from time to time cause to be kept in good repair and condition and free from pollution all wells, fountains, and pumps vested in them under this Act, and may also keep in good repair and condition and free from pollution other wells, fountains, and pumps dedicated to or open to the use of the inhabitants of such place.

PART II.

Amendment of the Nuisances Removal Acts.

14. The expression “Nuisances Removal Acts” shall mean the Acts passed in the years following of the reign of Her present Majesty, that is to say, the one in the session of the eighteenth and nineteenth years, chapter one hundred and twenty-one* and the other in the session of the twenty-third and twenty-fourth years, chapter seventy-seven,† as amended by this part of this Act; and this part of this Act shall be construed as one with the said Acts, and all expenses incurred by a nuisance authority in carrying into effect any of the provisions of this part of this Act shall be deemed to be expenses incurred by it in carrying into effect the Nuisances Removal Acts.

Definition of
“Nuisances
Removal
Acts.”

15. “Nuisance authority” shall mean any authority empowered to execute the Nuisances Removal Acts.‡

Definition of
“Nuisance
Authority.”

* The Nuisances Removal Act, England, 1855.

† The Nuisances Removal and Diseases Prevention Act, 1860.

‡ (23 & 24 Vict., c. 77) sect. 2.—The following bodies shall respectively be the local authority to execute the said Nuisances Removal Act in the districts hereunder stated in England :

In any place within which the Public Health Act is or shall be in force, the local board of health :

In any other place wherein a council exists or shall exist, the mayor, aldermen, and burgesses by the council, except in the city of London and the liberties thereof, where the local authority shall be the commissioners of sewers, for the time being, and except in the city of Oxford and borough of Cambridge, where the local authority shall be the commissioners acting in execution of the Local Improvement Acts in force respectively in the said city and borough :

In any place in which there is no local board of health or council, and where there are or shall be trustees or commissioners under an Improvement Act, such trustees or commissioners :

In any place within which there is no such local board of

Power of
police with
respect to
nuisances.

16. In any place within the jurisdiction of a nuisance authority the chief officer of police within that place, by and under the directions of one of Her Majesty's principal Secretaries of State, on its being proved to his satisfaction that the nuisance authority has made default in doing its duty, may* institute any proceeding which the nuisance authority of such place might institute with respect to the removal of nuisances: provided always, that no officer of police shall be at liberty to enter any house or part of a house used as the dwelling of any person without such person's consent, or without the warrant of a

health, council, body of trustees, or commissioners, if there be a board of guardians of the poor for such place, or for any parish or union within which such place is situate, such board of guardians, and, if there be no such board of guardians, the overseers of the poor for such place, or for the parish of which such place forms part.

Sect. 3 (*Repealed, except as regards any vestry or district board formed under 18 & 19 Vict. c. 120 (Metropolis Local Management Act).*)—Provided, that in any place where a highway board or "the nuisances removal committee," chosen by the vestry in pursuance of the said Act is subsisting, and at the time of the passing of this Act, employs or joins with other local authorities in employing a sanitary inspector or inspectors, such highway board or nuisances removal committee may continue to act, and a like committee may be annually chosen by the vestry for such place in the same manner as if this Act had not been passed;

But in case in any year the nuisances removal committee be not chosen for such place in manner provided by the said Act, or if the highway board or committee now subsisting or hereafter chosen fail for two months in any year to appoint or employ a sanitary inspector or inspectors, the authority of such highway board or committee shall cease, and no like committee shall be chosen for such place, and the same body or persons shall thenceforth be the local authority for the place as if no such highway board or committee had been appointed therein.

* It is to be regretted that the wording of this portion of the Act is not such as to render it *compulsory* upon the police to institute the proceedings referred to. The experience of a few weeks subsequent to its passing showed that it had failed to make provision for default on the part of the police.

justice of the peace, for the purpose of carrying into effect this Act.

17. The third section of the said Act of the session of the twenty-third and twenty-fourth years of the reign of Her present Majesty, chapter seventy-seven, shall be repealed, and all powers vested in any highway board or "nuisance removal committee" under the Nuisances Removal Acts shall determine, and all property belonging to them for the purposes of the said Nuisances Removal Acts shall, subject to any debts or liabilities affecting the same, be transferred to or vested in the nuisance authority under the said Acts: provided always, that this section shall not extend to any vestry or district board, under the Act of the session of eighteenth and nineteenth years of the reign of Her present Majesty, chapter one hundred and twenty, intituled *An Act for the better Local Management of the Metropolis*, or to any committee appointed by such vestry or district board for the purpose of carrying into effect the Nuisances Removal Acts or any of them.

Sect. 3 of 23 & 24 Vict. c. 77, repealed.

18 & 19 Vict. c. 120.

18. A requisition in writing under the hands of any ten inhabitants of a place shall for the purposes of the twenty-seventh section of "The Nuisances Removal Act for *England*, 1855," be deemed to be equivalent to the certificate of the medical officer or medical practitioners therein mentioned, and the said section shall be enforced accordingly.*

Requisition of ten inhabitants equivalent to certificate of medical officer.

* (18 & 19 Vict., c. 121) sect. 27.—If any candle-house, melting-house, melting-place, or soap-house, or any slaughter-house, or any building or place for boiling offal or blood, or for boiling, burning, or crushing bones, or any manufactory, building, or place used for any trade, business, process, or manufacture causing effluvia, be at any time certified to the local authority by any medical officer or any two legally qualified medical practitioners, to be a nuisance or injurious to the health of the inhabitants of the neighbourhood, the local

Addition to
definition of
nuisance.

19. The word "nuisances" under the Nuisance Removal Acts* shall include,

1. Any house or part of a house so overcrowded as to be dangerous or prejudicial to the health of the inmates :

authority shall direct complaint to be made before any justice, who may summon before any two justices in petty sessions assembled, at their usual of meeting, the person by or in whose behalf the work so complained of is carried on, and such justices shall inquire into such complaint, and if it shall appear to such justices that the trade or business carried on by the person complained against is a nuisance, or causes any effluvia injurious to the health of the inhabitants of the neighbourhood, and that such person shall not have used the best practicable means for abating such nuisance, or preventing or counteracting such effluvia, the person so offending (being the owner or occupier of the premises, or being a foreman or other person employed by such owner or occupier) shall, upon a summary conviction for such offence, forfeit and pay a sum of not more than five pounds, nor less than forty shillings, and upon a second conviction for such offence the sum of ten pounds, and for each subsequent conviction a sum double the amount of the penalty imposed for the last preceding conviction, but the highest amount of such penalty shall not in any case exceed the sum of two hundred pounds :

Provided always, that the justices may suspend their final determination in any such case, upon condition that the person so complained against shall undertake to adopt, within a reasonable time, such means as the said justices shall judge to be practicable and order to be carried into effect for abating such nuisance, or mitigating or preventing the injurious effects of such effluvia, or shall give notice of appeal in the manner provided by this Act, and shall enter into recognizances to try such appeal, and shall appeal accordingly :

Provided always, that the provisions hereinbefore contained shall not extend or be applicable to any place without the limits of any city, town, or populous district.

* The Nuisance Removal Acts already included as "nuisances:"

Any premises in such a state as to be a nuisance or injurious to health :

Any pool, ditch, gutter, watercourse, privy, urinal, cesspool, drain, or ashpit, so foul as to be a nuisance or injurious to health :

Any animal so kept as to be a nuisance or injurious to health :

Any accumulation or deposit which is a nuisance or injurious to health :

overcrowded
dwelling.

Part of
the
Nuisance

2. Any factory, workshop, or workplace not already under the operation of any General Act for the regulation of factories or bakehouses, not kept in a cleanly state, or not ventilated in such a manner as to render harmless as far as practicable any gases, vapours, dust, or other impurities generated in the course of the work carried on therein that are a nuisance or injurious or dangerous to health, or so overcrowded while work is carried on as to be dangerous or prejudicial to the health of those employed therein :

2. dirty
illventilated
overcrowded
workshops.

3. Any fireplace or furnace which does not as far as practicable consume the smoke arising from the combustible used in such fireplace or furnace, and is used within the district of a nuisance authority for working engines by steam, or in any mill, factory, dyehouse, brewery, bakehouse, or gaswork, or in any manufactory or trade process whatsoever :

3 unconsumed
trade smoke.

Any chimney (not being the chimney of a private dwelling house)* sending forth black smoke in such quantity as to be a nuisance :

4. smoke from
any chimney
except that of
a private
dwelling
house.

Provided, first, that in places where at the time of the passing of this Act no enactment is in force compelling fireplaces or furnaces to consume their own smoke, the foregoing enactment as to fireplaces and furnaces consuming their own smoke shall not come into operation until the expiration of one year from the date of the passing of this Act :

Provided always, that no such accumulation or deposit as shall be necessary for the effectual carrying on of any business or manufacture shall be punishable as a nuisance under this section, when it is proved, to the satisfaction of the justices, that the accumulation or deposit has not been kept longer than is necessary for the purposes of such business or manufacture, and that the best available means have been taken for protecting the public from injury to health thereby.

* The draft of this Act, as originally introduced, made no exception in respect of the chimneys of private dwelling-houses.

Secondly, that where a person is summoned before the justices in respect of a nuisance arising from a fireplace or furnace which does not consume the smoke arising from the combustible used in such fireplace or furnace, the justices may hold that no nuisance is created within the meaning of this Act, and dismiss the complaint, if they are satisfied that such fireplace or furnace is constructed in such manner as to consume as far as practicable, having regard to the nature of the manufacture or trade, all smoke arising therefrom, and that such fireplace or furnace has been carefully attended to by the person having the charge thereof.

Duties of
nuisance
authorities
as to in-
spection of
nuisances,
&c.

20. It shall be the duty of the nuisance authority to make from time to time, either by itself or its officers, inspection of the district, with a view to ascertain what nuisances exist calling for abatement under the powers of the Nuisance Removal Acts, and to enforce the provisions of the said Acts in order to cause the abatement thereof, also to enforce the provisions of any Act that may be in force within its district requiring fireplaces and furnaces to consume their own smoke; and any justice upon complaint upon oath may make an order to admit the nuisance authority or their officers for these purposes, as well as to ground proceedings under the eleventh section,* of the Nuisances Removal Act, 1855.

* (18 & 19 Vict., c. 121) sect. 11.—The local authority shall have power of entry for the following purposes of this Act, and under the following conditions :

1. To ground proceedings.

For this purpose, when they or any of their officers have reasonable grounds for believing that a nuisance exists on any private premises, demand may be made by them or their officer, on any person having custody of the premises, of admission to

21. The nuisance authority or chief officer of police shall, previous to taking proceedings before a justice under the twelfth section* of the Nuisances Removal Act, 1855, serve a notice on the person by whose act, default, or sufferance, the nuisance arises or continues, or, if such person cannot be found or ascertained, on the owner or occupier of the premises on which the nuisance arises, to abate the same, and for that purpose to execute such works and to do all such things as may be necessary within a time to be specified in the notice: provided,

As to proceedings of nuisance authority under sect. 12 of 18 & 19 Vict. c. 121.

First, that where the nuisance arises from the want or defective construction of any structural

inspect the same, at any hour between nine in the morning and six in the evening;

And if admission be not granted, any justice having jurisdiction in the place may, on oath made before him of belief in the existence of the nuisance, and after reasonable notice of the intended application to such justice being given in writing to the party on whose premises the nuisance is believed to exist, by order under his hand require the person having the custody of the premises to admit the local authority or their officer;

And if no person having custody of the premises can be discovered, any such justice may and shall, on oath made before him of belief in the existence of such nuisance, and of the fact that no person having custody of the premises can be discovered, by order under his hand authorize the local authority or their officers to enter the premises between the hours aforesaid.

* (18 & 19 Vict. c. 121) sect. 12.—In any case where a nuisance is so* ascertained by the local authority to exist, or where the nuisance in their opinion did exist at the time when the notice was given, and although the same may have been since removed or discontinued, is in their opinion likely to recur or to be repeated on the same premises or any part thereof, they shall cause complaint thereof to be made before a justice of the peace;

And such justice shall thereupon issue a summons requiring the person by whose act, default, permission, or sufferance the nuisance arises or continues, or if such person cannot be found or ascertained, the owner or occupier of the premises on which the nuisance arises, to appear before any two justices, in petty ses-

* *i. e.*, after notice, examination, and entry under sects. 10 and 11 of 18 & 19 Vict. c. 121.

convenience, or where there is no occupier of the premises, notice under this section shall be served on the owner :

Secondly, that where the person causing the nuisance cannot be found, and it is clear that the nuisance does not arise or continue by the act, default, or sufferance of the owner or occupier of the premises, then the nuisance authority may itself abate the same without further order, and the cost of so doing shall be part of the costs of executing the Nuisances Removal Acts, and borne accordingly.

Power to
cause pre-
mises to be
cleansed
or otherwise
disinfected.

22. If the nuisance authority shall be of opinion, upon the certificate of any legally qualified medical practitioner, that the cleansing and disinfecting of any house or part thereof, and of any articles therein likely to retain infection, would tend to prevent or check infectious or contagious disease, it shall be the duty of the nuisance authority to give notice in writing requiring the owner or occupier of such house or part thereof to cleanse and disinfect the same as the case may require ; and if the person to whom notice is so given fail to comply therewith within the time specified in the notice, he shall be liable to a penalty of not less than one shilling and not exceeding ten shillings for every day during

sions assembled at their usual place of meeting, who shall proceed to inquire into the said complaint ;

And if it be proved to their satisfaction that the nuisance exists, or did exist at the time when the notice was given, or, if removed or discontinued since the notice was given, that it is likely to recur or to be repeated, the justices shall make an order in writing under their hands and seals on such person, owner or occupier, for the abatement or discontinuance and prohibition of the nuisance as hereinafter mentioned, and shall also make an order for the payment of all costs incurred up to the time of hearing or making the order for abatement, or discontinuance, or prohibition of the nuisance.

which he continues to make default; and the nuisance authority shall cause such house or part thereof to be cleansed and disinfected, and may recover the expenses incurred from the owner* or occupier in default in a summary manner; when the owner or occupier of any such house or part thereof as is referred to in this section is from poverty or otherwise unable, in the opinion of the nuisance authority, effectually to carry out the requirements of this section, such authority may, without enforcing such requirements on such owner or occupier, with his consent, at its own expense, cleanse and disinfect such house or part thereof and any articles therein likely to retain infection.

23. The nuisance authority in each district may provide a proper place, with all necessary apparatus and attendance, for the disinfection of woollen articles, clothing, or bedding which have become infected, and they may cause any articles brought for disinfection to be disinfected free of charge.

Power to provide means of disinfection.

24. It shall be lawful at all times for the nuisance authority to provide and maintain a carriage or carriages suitable for the conveyance of persons suffering under any contagious or infectious disease, and to pay the expense of conveying any person therein to a hospital or place for the reception of the sick or to his own home.

Nuisance authorities may provide carriages for conveyance of infected persons.

* By 18 & 19 Vict., c. 121, sect. 2, the term "owner" "includes any person* receiving the rents of the property in respect of which that word is used from the occupier of such property on his own account, or as trustee or agent for any other person, or as receiver or sequestrator appointed by the court of chancery or under any order thereof, or who would receive the same if such property were let to a tenant."

* "The word 'person,' and words applying to any person or individual, apply to and include corporations, whether aggregate or sole." (18 & 19 Vict. c. 121, s. 2.)

Penalty on person suffering from infectious disorder entering public conveyance without notifying to driver that he is so suffering.

25. If any person suffering from any dangerous infectious disorder shall enter any public conveyance without previously notifying to the owner or driver thereof that he is so suffering, he shall on conviction thereof before any justice be liable to a penalty not exceeding five pounds, and shall also be ordered by such justice to pay to such owner and driver all the losses and expenses they may suffer in carrying into effect the provisions of this Act; and no owner or driver of any public conveyance shall be required to convey any person so suffering until they shall have been first paid a sum sufficient to cover all such losses and expenses.*

Removal of persons sick of infectious disorders, and without proper lodging, in any district.

26. Where a hospital or place for the reception of the sick is provided within the district of a nuisance authority, any justice may, with the consent of the superintending body of such hospital or place, by order on a certificate signed by a legally qualified medical practitioner, direct the removal to such hospital or place for the reception of the sick, at the cost of the nuisance authority, of any person suffering from any dangerous contagious or infectious disorder, being without proper lodging or accomodation, or lodged in a room occupied by more than one family, or being on board any ship or vessel.

Places for the reception of dead bodies may be provided at the public expense.

27. Any nuisance authority may provide a proper place for the reception of dead bodies, and where any such place has been provided and any dead body of one who has died of any infectious disease is retained in a room in which persons live or sleep, or any dead body which is in such a state as to endanger the health of the inmates of the same house or room is retained in such house or room, any justice may,

* It is not clear how such payment is to be computed, as the amount of the loss cannot well be ascertained before the commission of the act from which it is to arise.

on a certificate signed by a legally qualified medical practitioner, order the body to be removed to such proper place of reception at the cost of the nuisance authority, and direct the same to be buried within a time to be limited in such order; and unless the friends or relations of the deceased undertake to bury the body within the time so limited, and do bury the same, it shall be the duty of the relieving officer* to bury such body at the expense of the poor rate, but any expense so incurred may be recovered by the relieving officer in a summary manner from any person legally liable to pay the expense of such burial.

28. Any nuisance authority may provide a proper place (otherwise than at a workhouse or at a mortuary house as lastly hereinbefore provided for) for the reception of dead bodies for and during the time required to conduct any *post-mortem* examination ordered by the coroner of the district or other constituted authority, and may make such regulations as they may deem fit for the maintenance, support, and management of such place; and where any such place has been provided, any coroner or other constituted authority may order the removal of the body for carrying out such *post-mortem* examination and the re-removal of such body, such costs of removal and re-removal to be paid in the same manner and out of the same fund as the cost and fees for *post-mortem* examinations when ordered by the coroner.

Places for reception of dead bodies during time required for post-mortem examination may be provided.

29. Any nuisance authority may, with the sanction of the Privy Council, signified in manner

Power to remove to hospital sick persons

* It is to be regretted that, by the wording of this section, the relieving officer is only required to bury in cases occurring in places in which the "nuisance authority" has provided "a proper place for the reception of dead bodies." His interference is more needed where no such "proper place" has been provided.

brought by
ships.

provided by "The Public Health Act, 1858,"* lay down rules for the removal to any hospital to which such authority is entitled to remove patients, and for keeping in such hospital so long as may be necessary any persons brought within their district by any ship or boat who are infected with a dangerous and infectious disorder, and they may by such rules impose any penalty not exceeding five pounds on any person committing any offence against the same.

Provision as
to district of
nuisance
authority
extending
to places
where ships
are lying.

30. For the purposes of this Act any ship, vessel, or boat that is in a place not within the district of a nuisance authority shall be deemed to be within the district of such nuisance authority as may be prescribed by the Privy Council, and until a nuisance authority has been prescribed then of the nuisance authority whose district nearest adjoins the place where such ship, vessel, or boat is lying, the distance being measured in a straight line, but nothing in this Act contained shall enable any nuisance authority to interfere with any ship, vessel, or boat that is not in *British* waters.

Power of
entry to
nuisance
authority or
their officer
under
sect. 11 of
18 & 19 Vict.
c. 121.

31. The power of entry given to the authorities by the eleventh section of The Nuisances Removal Act, 1855,† may be exercised at any hour when the business in respect of which the nuisance arises is in progress or is usually carried on.

And any justices order once issued under the said section shall continue in force until the nuisance has been abated, or the work for which the entry was necessary has been done.

Provision as
to ships
within the
jurisdiction

32. Any ship or vessel lying in any river, harbour, or other water shall be subject to the jurisdiction of

* 21 & 22 Vict. c. 98.

† See note, page 29, *ante*.

the nuisance authority of the district within which such river, harbour, or other water is, and be within the provisions of the Nuisances Removal Acts, in the same manner as if it were a house within such jurisdiction, and the master or other officer in charge of such ship shall be deemed for the purposes of the Nuisances Removal Acts to be the occupier* of such ship or vessel; but this section shall not apply to any ship or vessel belonging to Her Majesty or to any foreign government.

of nuisance authority.

33. Where the guardians are the nuisance authority for part of any parish only, and shall require to expend money on account of such part in execution of the provisions of the said Acts, the overseers of the parish shall, upon receipt of an order from the said guardians, raise the requisite amount from the persons liable to be assessed to the poor rate therein by a rate to be made in like manner as a poor rate, and shall have all the same powers of making and recovering the same, and of paying the expense of collecting the rate when made, and shall account to the auditor of the district for receipt and disbursement of the same, in like manner, and with the same consequences, as in the case of the poor rate made by them.

Provision for raising money in divided parishes.

34. That it shall be lawful for the nuisance authority, at their discretion, to require the payment of any costs or expenses which the owner† of any

Nuisance authority may require payment of costs or expenses from

* Although by section 25 of 18 & 19 Vict. c. 121 (Nuisances Removal and Diseases Prevention Act), it is laid down that whenever it is necessary to refer to the occupier of any premises it shall be sufficient to designate him as the "occupier," without name or further description, it will probably be found, in practice, that it is better to designate by name, when it can be ascertained, the person who, as occupier, is the subject of proceedings.

† As to definition of the term "owner," see note to section 22, page 31, *ante*.

owner or
occupier,
and occupier
paying to
deduct from
rent,

premises may be liable to pay under the said Nuisances Removal Acts or this Act, either from the owner or from any person who then or at any time thereafter occupies such premises, and such owner or occupier shall be liable to pay the same, and the same shall be recovered in manner authorized by the Nuisance Removal Acts,* and the owner shall allow such occupier to deduct the sums of money which he so pays out of the rent from time to time becoming due in respect of the said premises, as if the same had been actually paid to such owner as part of such rent: provided always, that no such occupier shall be required to pay any further sum than the amount of rent for the time being due from him, or which, after such demand of such costs or expenses from such occupier, and after notice not to pay his landlord any rent without first deducting the amount of such costs or expenses, becomes payable by such occupier, unless he refuse, on application being made to him for that purpose by or on behalf of the nuisance authority, truly to disclose the amount of

* (18 & 19 Vict. c. 121.)—By section 20 it is enacted that “where any costs, expenses, or penalties, are due under or in consequence of any order of justices made in pursuance of this Act as aforesaid, any justice of the peace, upon the application of the local authority, shall issue a summons requiring the person from whom they are due to appear before two justices, at a time and place to be named therein;

And upon proof to the satisfaction of the justices present that any such costs, expenses, or penalties, are so due, such justices (unless they think fit to excuse the party summoned, upon the ground of poverty or other special circumstances) shall, by order in writing, under their hands and seals, order him to pay the amount to the local authority at once, or by such instalments as the justices think fit, together with the charges attending such application and the proceedings thereon;

And if the amount of such order, or any instalment thereof, be not paid within fourteen days after the same is due, the same may, by warrant of the said or other justices, be levied by distress and sale.

his rent and the name and address of the person to whom such rent is payable, but the burden of proof that the sum demanded from any such occupier is greater than the rent due by him at the time of such notice, or which has since accrued, shall lie upon such occupier; provided also, that nothing herein contained shall be taken to affect any contract made or to be made between any owner or occupier of any house, building, or other property whereof it is or may be agreed that the occupier shall pay or discharge all rates, dues, and sums of money payable in respect of such house, building, or other property, or to affect any contract whatsoever between landlord or tenant.

PART III.

Miscellaneous.

35. On application to one of Her Majesty's principal Secretaries of State by the Nuisance Authority of the city of *London*, or any district or parish included within the Act for the better local government of the metropolis, or of any municipal borough, or of any place under The Local Government Act, 1858,* or any Local Improvement Act, or of any city or town containing, according to the census for the time being in force, a population of not less than five thousand inhabitants, the Secretary of State may, as he may think fit, by notice to be published in the *London Gazette*, declare the following enactment to be in force in the district of such nuisance authority, and from and after the publication of such notice the nuisance authority shall be empowered to make regulations for the following matters; that is to say,

1. For fixing the number of persons who may occupy a house or part of a house which is

In cities, boroughs, or towns, Secretary of State, on application of nuisance authority, may empower them to make regulations as to lodging houses.

See Sect 47, Act 1874, Notes in London Gazette 28 Dec 83, for rules made by London Nuisance Authority

* 21 & 22 Vict. c. 98.

with respect to houses let and lodging, or to members of any household or family,

let in lodgings or occupied by members of more than one family :*

2. For the registration of houses thus let or occupied in lodgings :
3. For the inspection of such houses, and the keeping the same in a cleanly and wholesome state :
4. For enforcing therein the provision of privy accommodation and other appliances and means of cleanliness in proportion to the number of lodgings and occupiers, and the cleansing and ventilation of the common passages and staircases :
5. For the cleansing and lime-whiting at stated times of such premises :

The nuisance authority may provide for the enforcement of the above regulations by penalties† not exceeding forty shillings for any one offence, with an additional penalty not exceeding twenty shillings for every day during which a default in obeying such regulations may continue ; but such regulations shall not be of any validity unless and until they shall have been confirmed by the Secretary of State.

But this section shall not apply to common lodging houses within the provisions of The Common Lodging Houses Act, 1851,‡ or any Act amending the same.

Cases in which two convictions have occurred within three months.

36. Where two convictions against the provisions of any Act relating to the overcrowding of a house, or the occupation of a cellar as a separate dwelling place shall have taken place within the period of three months, whether the persons so convicted were

* As to the burden of proof of membership of the same family, see section 41, page 41, *post*.

† As to recovery of penalties, see section 54, page 48, *post*.

‡ 16 & 17 Vict. c. 41.

or were not the same, it shall be lawful for any two justices to direct the closing of such premises for such time as they may deem necessary, and, in the case of cellars occupied as aforesaid, to empower the nuisance authority to permanently close the same, in such manner as they may deem fit, at their own cost.

37. The sewer authority,* or in the metropolis the nuisance authority, may provide for the use of the inhabitants within its district hospitals or temporary places for the reception of the sick. Power to provide hospitals.

Such authority may itself build such hospitals or places of reception, or make contracts† for the use of any existing hospital or part of a hospital, or for the temporary use of any place for the reception of the sick.

It may enter into any agreement‡ with any person or body of persons having the management of any hospital for the reception of the sick inhabitants of its district, on payment by the sewer authority of such annual or other sum as may be agreed upon.

The carrying into effect this section shall in the case of a sewer authority be deemed to be one of the purposes of the said Sewage Utilization Act, 1865,‡ and all the provisions of the said Act shall apply accordingly.

Two or more authorities having respectively the power to provide separate hospitals may combine in providing a common hospital, and all expenses incurred by such authorities in providing such hospital shall be deemed to be expenses incurred by them

* For definition of "sewer authority," see note to section 2, page 7, *ante*.

† Section 46 (page 44, *post*) incorporates local boards, sewer authorities, and nuisance authorities.

‡ 28 & 29 Vict. c. 75.

respectively in carrying into effect the purposes of this Act.

Penalty on any person, with infectious disorder, exposing himself, or on any person in charge of such sufferer causing such exposure.

38. Any person suffering from any dangerous infectious disorder who wilfully exposes himself, without proper precaution, against spreading the said disorder, in any street, public place, or public conveyance, and any person in charge of one so suffering who so exposes the sufferer, and any owner or driver of a public conveyance who does not immediately provide for the disinfection of his conveyance after it has, with the knowledge of such owner or driver, conveyed any such sufferer, and any person who without previous disinfection gives, lends, sells, transmits, or exposes any bedding, clothing, rags, or other things which have been exposed to infection from such disorders, shall, on conviction of such offence before any justice, be liable to a penalty not exceeding five pounds.* Provided that no proceedings under this section shall be taken against persons transmitting with proper precautions any such bedding, clothing, rags, or other things for the purpose of having the same disinfected.†

Penalty on persons letting houses in which infected persons have been lodging.

39. If any person knowingly lets any house, room, or part of a house in which any person suffering from any dangerous infectious disorder has been to any other person without having such house, room, or part of a house, and all articles therein liable to retain infection, disinfected to the satisfaction of a qualified medical practitioner as testified by a certificate given by him, such person shall be liable to a penalty not exceeding twenty pounds. For the purposes of this section the keeper of an inn shall

* As to recovery of penalties, see section 54, page 48, *post*.

† That is, under the power conferred upon the nuisance authority by section 23, page 31, *ante*.

be deemed to let part of a house to any person admitted as a guest into such inn.

40. Where in any place two or more boards of guardians or local authorities have jurisdiction, the Privy Council may, by any order made under the Diseases Prevention Act, 1855,* authorize or require such boards to act together for the purposes of that Act, and may prescribe the mode of such joint action and of defraying the costs thereof.†

Guardians, &c. of the poor to be the local authorities for executing Diseases Prevention Act.

41. In any proceedings under the Common Lodging Houses Act, 1851, if the inmates of any house or part of a house allege that they are members of the same family, the burden of proving such allegation shall lie on the persons making it.

Evidence of family in case of overcrowded houses.

42. The sixty-seventh section‡ of the Public

Extension to the whole of

* 18 & 19 Vict. c. 121.

† The wording of this section is somewhat obscure. Each board of guardians acts for its own union, and in no "place," therefore, can two or more such boards have jurisdiction. It was probably intended by the framers of the Act to provide for the case of a town or other district comprising two or more unions.

‡ (11 & 12 Vict., c. 63) sect. 67.—And be it enacted that it shall not be lawful to let or occupy or suffer to be occupied separately as a dwelling any vault, cellar, or underground room built or rebuilt after the passing of this Act, or which shall not have been so let or occupied before the passing of this Act; and it shall not be lawful to let or continue to let, or to occupy or suffer to be occupied, separately as a dwelling, any vault, cellar, or underground room whatsoever, unless the same be in every part thereof at least seven feet in height, measured from the floor to the ceiling thereof, nor unless the same be at least three feet of its height above the surface of the street or ground adjoining or nearest to the same, nor unless there be outside of and adjoining the same vault, cellar, or room, and extending along the entire frontage thereof, and upwards from six inches below the level of the floor thereof up to the surface of the said street or ground, an open area of at least two feet and six inches wide in every part, nor unless the same be well and effectually drained by means

of a drain the uppermost part of which is one foot at least below the level of the floor of such vault, cellar, or room, nor unless there be appurtenant to such vault, cellar, or room, the use of a watercloset or privy and an ashpit, furnished with proper doors and coverings kept and provided according to the provisions of this Act, nor unless the same have a fireplace with a proper chimney or flue, nor unless the same have an external window of at least nine superficial feet in area clear of the sash frame, and made to open in such manner as shall be approved by the surveyor, except in the case of an inner or back vault, cellar, or room let or occupied along with a front vault, cellar, or room as part of the same letting or occupation, in which case the external window may be of any dimensions not being less than four superficial feet in area clear of the sash frame; and whosoever lets, occupies, or continues to let, or knowingly suffers to be occupied for hire or rent, any vault, cellar, or underground room, contrary to this Act, shall be liable for every such offence to a penalty not exceeding twenty shillings for every day during which the same continues to be so let or occupied after notice in writing from the local board of health in this behalf: provided always, that in any area adjoining a vault, cellar, or underground room there may be steps necessary for access to such vault, cellar, or room, if the same be so placed as not to be over, across, or opposite to the said external window, and so as to allow between every part of such steps and the external wall of such vault, cellar, or room, a clear space of six inches at the least, and that over or across any such area there may be steps necessary for access to any building above the vault, cellar, or room to which such area adjoins, if the same be so placed as not to be over, across, or opposite to any such external window: provided also, that every vault, cellar, or underground room in which any person passes the night shall be deemed to be occupied as a dwelling within the meaning of this Act: provided also, that the provisions of this Act with respect to the letting and occupation of vaults, cellars, and underground rooms shall not, so far as the same relate to vaults, cellars, and underground rooms which shall have been let or occupied as dwellings before the passing of this Act, come into force or operation until the expiration of one year from the passing of this Act, nor within any district until the expiration of six months from the time when this Act shall have been applied thereto; and all churchwardens and overseers of the poor shall from time to time after the passing of this Act cause public notice of the provisions of this Act with respect to the letting and occupation of vaults, cellars, and underground rooms to be given in such manner as may appear to them to be best calculated to make the same generally known.

Health Act, 1848, relating to cellar dwellings, shall apply to every place in *England* and *Ireland* where such dwellings are not regulated by any other Act of Parliament, and in applying that section to places where it is not in force at the time of the passing of this Act the expression "this Act" shall be construed to mean the "Sanitary Act, 1866," and not the said Public Health Act, 1848. In construing the said sixty-seventh section as applied by this Act nuisance authority shall be substituted for the local board.

England and Ireland of Sect. 67, of 11 & 12 Vict. c. 63.

43. Local boards acting in execution of the Local Government Act, 1858, may adopt the Act to encourage the establishment of public baths and wash-houses, and any Act amending the same, for districts in which those Acts are not already in force, and when they have adopted the said Acts they shall have all the powers, duties, and rights of commissioners under the said Acts; and all expenses incurred by any local board in carrying into execution the Acts referred to in this section shall be defrayed out of the general district rates, and all receipts by them under the said Acts shall be carried to the district fund account.

Local board in certain cases may adopt Baths and Wash-houses Acts.

44. When the district of a burial board is contiguous with the district of a local board of health, the burial board may, by resolution of the vestry, and by agreement of the burial board and local board, transfer to the local board all their estate, property, rights, powers, duties, and liabilities, and from and after such transfer the local board shall have all such estate, property, rights, powers, duties, and liabilities as if the local board had been appointed a burial board by order in council under the fourth section of the Act of the session of the twentieth and twenty-first years of the reign of Her present Majesty, chapter eighty-one.

Power to burial boards in certain cases to transfer their powers to local board.

Penalty for wilful damage of works.

45. If any person wilfully damages any works or property belonging to any local board, sewer authority, or nuisance authority, he shall be liable to a penalty not exceeding five pounds.*

Incorporation of sanitary authorities.

46. The following bodies, that is to say, local boards, sewer authorities, and nuisance authorities, if not already incorporated, shall respectively be bodies corporate designated by such names as they may usually bear or adopt, with power to sue and be sued in such names, and to hold lands for the purposes of the several Acts conferring powers on such bodies respectively in their several characters of local boards, sewer authorities, or nuisance authorities.

Extent of authority to make provisional orders respecting lands under Sect. 75. of 21 & 22 Vict. s. 98.

47. The authority conferred on one of Her Majesty's principal secretaries of state by section seventy-five of the Local Government Act, 1858,† to empower by provisional order a local board to put in force, with reference to the land referred to in such order, the powers of the Lands Clauses Consolidation Act, 1845, with respect to the purchase and taking of lands otherwise than by agreement, shall extend and apply and shall be deemed to have always extended and applied to every case in which, by the Public Health Act, 1848,‡ and the Local Government Act, 1858,† or either of them, or any Act extending or amending those Acts, or either of them, a local board are authorized to purchase, provide, use, or take lands or premises for any of the purposes of the said Acts, or either of them, or of any such Act as aforesaid; and sections seventy-three and eighty-four of the Public Health Act, 1848, shall be construed

* As to recovery of penalties, see section 54, page 48, *post*.

† 21 & 22 Vict. c. 98.

‡ 11 & 12 Vict. c. 63.

§ *Sic* in original. Evidently a misprint for *caput*.

as if the words "by agreement" therein respectively used had been expressly repealed by section seventy-five of the Local Government Act, 1858.*

48. Any local board, sewer authority, or nuisance authority may appear before any justice or justices, or in any legal proceeding, by its clerk or by any officer or member authorized generally or in respect of any special proceeding by resolution of such board or authority, and such person being so authorized shall be at liberty to institute and carry on any proceeding which the nuisance authority is authorized to institute and carry on under the Nuisance Removal Acts or this Act.†

49. Where complaint is made to one of Her Majesty's principal secretaries of state that a sewer authority or local board of health has made default in providing its district with sufficient sewers, or in the maintenance of existing sewers, or in providing its district with a supply of water in cases where danger arises to the health of the inhabitants from the insufficiency or unwholesomeness of the existing supply of water, and a proper supply can be got at a reasonable cost, or that a nuisance authority has made default in enforcing the provisions of the Nuisance Removal Acts, or that a local board has made default in enforcing the provisions of the Local Government Act, the said secretary of state, if satisfied after due inquiry made by him that the authority has been guilty of the alleged default, shall

* 21 & 22 Vict., c. 98.

† Although this section provides for the representation of the local authority in legal proceedings when set on foot, it does not give any authority for the institution of such proceedings by an officer without authorization *in the particular case*. Upon this point see *The Isle of Wight Ferry Company, appellants, the Ryde Commissioners, respondents*, 25 J. P. 454.

make an order limiting a time for the performance of its duty in the matter of such complaint; and if such duty is not performed by the time limited in the order, the said secretary of state shall appoint some person to perform the same, and shall by order direct that the expenses of performing the same, together with a reasonable remuneration to the person appointed for superintending such performance, and amounting to a sum specified in the order, together with the costs of the proceedings, shall be paid by the authority in default; and any order made for the payment of such costs and expenses may be removed into the court of Queen's Bench, and be enforced in the same manner as if the same were an order of such court.

Recovery of certain expenses of water supply.

50. All expenses incurred by a sewers authority or local board in giving a supply of water to premises under the provisions of the seventy-sixth section of the Public Health Act, 1848,* or the fifty-first section of the Local Government Act, 1858,† and recoverable from the owners of the premises supplied, may be recovered in a summary manner.‡

Power to reduce penalties imposed by 6 G. 4. c. 78.

51. All penalties imposed by the Act of the sixth year of King George the Fourth, chapter seventy-eight, intituled *An Act to repeal the several Laws relating to Quarantine, and to make other Provisions in lieu thereof*, may be reduced by the justices or court having jurisdiction in respect of such penalties to such sum as the justices or court think just.

Description of vessels within provisions of 6 G. 4. c. 78.

52. Every vessel having on board any person affected with a dangerous or infectious disorder shall

* 11 & 12 Vict. c. 63.

† 21 & 22 Vict. c. 98.

‡ *i. e.* (in manner directed by section 54, page 48, *post*), under 11 & 12 Vict. c. 43.

be deemed to be within the provisions of the Act of the sixth year of King *George* the Fourth, chapter seventy-eight, although such vessel has not commenced her voyage, or has come from or is bound for some place in the United Kingdom; and the lords and others of Her Majesty's most honourable Privy Council, or any three or more of them (the Lord President of the Council or one of Her Majesty's principal secretaries of state being one), may, by order or orders to be by them from time to time made, make such rules, orders, and regulations as to them shall seem fit, and every such order shall be certified under the hand of the clerk in ordinary of Her Majesty's Privy Council, and shall be published in the *London Gazette*, and such publication shall be conclusive evidence of such order to all intents and purposes; and such orders shall be binding and be carried into effect as soon as the same shall have been so published, or at such other time as shall be fixed by such orders, with a view to the treatment of persons affected with cholera and epidemic, endemic, and contagious disease, and preventing the spread of cholera and such other diseases as well on the seas, rivers, and waters of the United Kingdom, and on the high seas within three miles of the coasts thereof, as on land; and to declare and determine by what nuisance authority or authorities such orders, rules, and regulations shall be enforced and executed; and any expenses incurred by such nuisance authority or authorities shall be deemed to be expenses incurred by it or them in carrying into effect the Nuisances Removal Acts.

53. Where notice has been given* by the nuisance authority, or their officer or officers, for the periodical removal of manure or other refuse matter from mews,

Periodical
removal of
manure in
mews, &c.

* As directed by section 21, page 29, *ante*.

stables, or other premises (whether such notice shall be by public announcement in the locality or otherwise), and subsequent to such notice the person or persons to whom the manure or other refuse matter belongs shall not so remove the same, or shall permit a further accumulation, and shall not continue such periodical removal at such intervals as the nuisance authority, or their officer or officers, shall direct, he or they shall be liable, without further notice, to a penalty* of twenty shillings *per* day for every day during which such manure or other refuse matter shall be permitted to accumulate, such penalty to be recovered in a summary manner: Provided always, that this section shall not apply to any place where the board of guardians or overseers of the poor are the nuisance authority.

Recovery of
penalties.

54. Penalties under this Act, and expenses directed to be recovered in a summary manner, may be recovered before two justices in manner directed by an Act passed in the session holden in the eleventh and twelfth years of the reign of Her Majesty Queen Victoria, chapter forty-three, intituled *An Act to facilitate the Performance of the Duties of Justices of the Peace out of Sessions within England and Wales with respect to summary Convictions and Orders*, or any Act amending the same.

Powers of
Act cumulative.

55. All powers given by this Act shall be deemed to be in addition to and not in derogation of any other powers conferred on any local authority by Act of Parliament, law, or custom, and such authority may exercise such other powers in the same manner as if this Act had not passed.

* As to recovery of penalties, see section 54, *infra*.

PART IV.

Application of Act to Ireland.

56. In applying the first part of this Act to *Ireland* the following changes shall be observed :

Modifica-
tions neces-
sary for
application
of part I. to
Ireland.

(1.) The provisions of the sections numbered from seventy-five to eighty, both included, of the Public Health Act, 1848, and sections fifty-one, fifty-two, and fifty-three of the Local Government Act, 1858, and section twenty of the Local Government Act, 1858, Amendment Act, 1861, referred to in the first part of this Act, shall for all purposes connected with the execution of this Act be extended to *Ireland* :

(2.) The Sewage Utilization Act, 1865, shall be amended by substituting in *Ireland* the sewer authority, as defined by the first schedule to this Act, for the sewers authority as defined by said Act.

57. The Nuisance Removal Acts as amended by the second part of this Act shall apply to *Ireland* ; provided, however, that in such application the following changes shall be observed :

Modifica-
tions neces-
sary for
application
of part II. to
Ireland.

(1.) Sewer authority as defined by the Sewage Utilization Act, 1865, and amended by this Act, shall in *Ireland* be the nuisance authority for executing the Nuisance Removal Acts :

(2.) The expenses of executing the Nuisance Removal Acts shall be defrayed out of the funds herein-after provided :

(3.) The penalties shall be recovered in the manner herein-after provided :

(4.) The expressions "Mayor, Aldermen, and Burgesses," "Council," "Borough Rate," "Borough Fund," and "Town Rate," shall in the first

schedule hereto have respectively the same meaning as in the Acts for the Regulation of Municipal Corporations in *Ireland* :

- (5.) For the purposes of the twenty-second section of the Nuisance Removal Act, 1855, the nuisance authority shall in *Ireland* have the power of entering land conferred by the Sewage Utilization Act, 1865, and shall have the same power of levying assessments under the said section that they have of levying any other rates they are authorized by law to impose.

How expenses to be defrayed in *Ireland* when nuisance authority not a board of guardians.

58. In *Ireland* the nuisance authority, not being the guardians of the poor, shall pay all expenses incurred by them in carrying the Nuisance Removal Acts into effect out of the fund in the first schedule in that behalf mentioned, and where such fund arises wholly or in part from rates shall have, in addition to their existing powers of rating, all such powers for making and levying any extra rate, if necessary, respectively, as in the case of any rate authorized to be made under the provisions of the respective Acts of Parliament under which the nuisance authorities are constituted or authorized to levy rates ; and all provisions of such Acts respectively shall be applicable in respect thereof ; provided that when the rates to be assessed by such authority are limited by law to a certain rateable amount, such limitation shall not apply or extend to expenses incurred in carrying this Act into execution ; and it shall be lawful for such authority to assess the expenses under this Act in addition to such limited assessment.

When board of guardians is nuisance authority, how expenses to be defrayed in *Ireland*.

59. In *Ireland* a nuisance authority, being guardians of the poor, shall pay all expenses incurred by them in carrying this Act into effect out of the poor rates of the union, and charge the same to the union, or any electoral division or electoral divisions thereof,

in such manner as the Poor Law Commissioners shall from time to time, by general orders applicable to classes of cases, or by order in any particular case, direct.

60. In *Ireland*, penalties under this Act and ex-
penses or compensation directed to be recovered in a
summary manner, and nuisances and other offences
liable to be prosecuted summarily, shall be recovered
and prosecuted in manner directed by the Petty
Sessions (*Ireland*) Act, 1851, or any Act amending
the same; and all penalties recovered by any autho-
rity under this Act shall be paid to them respectively,
and by them applied in aid of their expenses under
this Act.

Recovery of
penalties in
Ireland.

Any order authorized to be made by justices under
this Act shall be deemed to be an order made upon
a complaint on which justices are authorized to make
orders under the last-mentioned Act.

61. In applying the provisions of Part III. of this
Act to *Ireland* the following changes shall be observed:

Modifica-
tions neces-
sary for
application
of part III.
to *Ireland*.

- (1.) Applications for power to make regulations as
to lodging houses may be made by any nuisance
authority, except a board of guardians, and
shall be made to the Lord Lieutenant in council,
and the said Lord Lieutenant in council shall have
the power of declaring the enactments as to
lodging houses in the third part of this Act to
be in force in any nuisance district :
- (2.) The said Lord Lieutenant in council shall
have and exercise the power, in respect of boards
of guardians acting together, vested in the Privy
Council by the said third part of this Act.
- (3.) In *Ireland*, any nuisance authority, except a
board of guardians, may exercise the powers
conferred on local boards acting in the execution

of the Local Government Act, 1858, by the said third part of this Act :

- (4.) Sewer and nuisance authorities in *Ireland* shall be incorporated for the purposes of this Act by the names set forth in the said first schedule hereto ; and such sewer or nuisance authorities may hold lands by such names for the purposes of Burial Ground (*Ireland*) Act, 1856 :
- (5.) The penalties under the third part of this Act shall be recovered in like manner as herein-before provided with respect to penalties under the second part of this Act.

Modifica-
tions neces-
sary for
application
of Disease
Prevention
Act to
Ireland.

62. The Diseases Prevention Act, 1855, as amended by the Nuisance Removal and Disease Prevention Amendment Act, 1860, and this Act, shall extend to *Ireland* : Provided, however, that in such application the following changes shall be observed :

- (1.) The Lord Lieutenant in council shall have the power with respect to *Ireland* which the Privy Council has under such provisions for prevention of disease in *England* :
- (2.) The commissioners for administering the laws for the relief of the poor in *Ireland*, herein-after called the Poor Law Commissioners, shall be the authority in *Ireland* for issuing regulations to carry the provisions of said Act into effect :
- (3.) The regulations of the Poor Law Commissioners shall be authenticated in like manner as orders of theirs under the Dispensary Act, 1851, Stat. 14 & 15 *Vict.* c. 68, sect. 8 :
- (4.) In defraying the expenses of the prevention of disease out of the poor rate of the union under this Act the guardians of the poor shall charge the same to the union, or any dispensary district or electoral division or divisions thereof,

in such manner as the Poor Law Commissioners shall from time to time, by general orders applicable to classes of cases, or by orders in particular cases, direct.

63. In *Ireland*, all committees, inspectors, medical officers, and other persons appointed or employed under the powers of statute fourteenth and fifteenth *Victoria*, chapter sixty-eight (the Dispensaries Act, 1851), shall and they are hereby required within their respective districts to aid the local authority, and such officers or persons as they shall appoint or employ, in the superintendence and execution of any directions and regulations which may at any time be issued by the Poor Law Commissioners for the time being under the authority and by virtue of this Act.

Committee and officers under Dispensaries Act to aid local authority in execution of this Act.

64. In *Ireland*, the provisions of the Dispensary Act, 1851 (Statute 14 & 15 *Vict.* c. 68), with respect to the duties and appointment of medical inspectors, shall be incorporated with this Act, and the prevention of disease and enquiry into public health under this Act shall be deemed one of the purposes for which such medical inspectors have been or may be appointed, in like manner as if its provisions had been referred to in the said Act of 1851, instead of the provisions of the said Nuisance Removal and Diseases Prevention Act of 1848.

The provisions of 14 & 15 *Vict.* c. 68, as to duties and appointment of medical inspectors in Ireland incorporated with this Act.

65. In *Ireland*, whenever in compliance with any direction or regulation of the Poor Law Commissioners which they may be empowered to make under the laws for the time being as to the public health, any medical officer of a union or dispensary district, or any other medical practitioner specially employed by the guardians for the purpose, shall perform any extra medical service in any union or part of a union, it shall and may be lawful for the guar-

Remuneration to medical practitioners for services under the directions and regulations of the Poor Law Commissioners in Ireland.

dians of the union to determine, subject to the approval of the said commissioners, and if they shall not approve the amount determined by the guardians, for the said commissioners to fix by order under their seal, such remuneration, proportioned to the nature and extent of such services as aforesaid, as to them shall appear just and reasonable; and the amount of such remuneration shall be paid to such medical officer or other medical practitioner by the guardians of the union out of the rates raised for the relief of the poor, and shall be charged either to the union at large, or to such part or parts of the union, according to the nature of the case, as the said commissioners shall in each case direct.

Poor Law Commissioners to make inquiries as to public health in Ireland.

66. The Lord Lieutenant in council may from time to time direct the Poor Law Commissioners to cause to be made such inquiries as the Lord Lieutenant in council see fit in relation to any matters concerning the public health in any place or places in *Ireland*, and the Poor Law Commissioners shall report the result of such inquiries to the Lord Lieutenant in council.

Publication in Ireland to be made in Dublin Gazette.

67. Publication shall be made in the *Dublin Gazette* in any case in *Ireland* where publication in the *London Gazette* is required in *England*.

Powers in Secretary of State in England to be exercised in Ireland by the Lord Lieutenant in council.

68. All powers relating to the execution of this Act in *England*, and by this Act vested in one of Her Majesty's principal Secretaries of State, shall, with regard to the execution of this Act in *Ireland*, in all cases not herein-before expressly provided for, be vested in the Lord Lieutenant or other chief governor or governors of *Ireland*; and all powers relating to the execution of this Act in *England*, and by this Act vested in the Privy Council in *England*, shall, with regard to the execution of this Act in

Ireland, in all cases not herein-before expressly provided for, be vested in the Lord Lieutenant in council in *Ireland*.

69. From and after the passing of this Act the Acts set forth in the second schedule hereto shall be repealed, so far as they are still in force: Provided always, that all proceedings commenced or taken under the said Acts and not yet completed may be proceeded with under said Acts, and that all contracts and works undertaken by virtue of said Acts shall continue and be effective as if said Acts had not been repealed.

Repeal of statutes applicable to Ireland.

SCHEDULES.

FIRST SCHEDULE.

APPLICATION TO IRELAND.

Description of Sewers and Nuisance Authority in Ireland.	Description of Sewers and Nuisance District in Ireland.	Corporate Name, for the purpose of suing or being sued, or holding Property, under the provisions of this Act.	Rate or Fund out of which Expenses incurred by Sewers or Nuisance Authority under this Act to be defrayed.
The right honourable the lord mayor, aldermen, and burgesses, acting by the town council.	The city of Dublin.	The right honourable the lord mayor, aldermen, and burgesses of the city of Dublin.	The borough rate or borough fund.
The mayor, aldermen, and burgesses, acting by the town council.	Towns corporate, with exception of Dublin.	The mayor, aldermen, and burgesses of the city or town of —	The borough rate or borough fund.
The town commissioners.	Towns having town commissioners, under the Towns Improvement (Ireland) Act, 1854 (17 & 18 Vict. c. 113), or under any local act.	The town commissioners of —	Any rate levied by the commissioners.
The township commissioners.	Townships having commissioners under local acts.	The township commissioners of —	
The commissioners appointed by virtue of an Act made in the 9th year of the reign of George the Fourth, intituled "An Act to make Provision for the Lighting, Cleansing, and Watching of Cities and Towns Corporate and Market Towns in Ireland in certain Cases."	Towns under such commissioners.	The lighting and cleansing commissioners of the town of —	
The municipal commissioners.	Towns having municipal commissioners, under 3 & 4 Vict. c. 108.	The municipal commissioner of —	The town fund.
The guardians of the poor of each union.	Such part of each union as is not under another sewer or nuisance authority.	The guardians of the poor of the — union.	The poor rate of union.

SECOND SCHEDULE.

Statutes repealed.

Local Boards of Health Act for Ireland, 1818 ;
Statute 58 Geo. 3, c. 47, ss. 10 to 15 inclusive.

Officers of Health Act for Ireland, 1819 ; Statute
59 Geo. 3, c. 41.

Nuisance Removal and Disease Prevention Act,
1848.

Nuisance Removal and Disease Prevention Act,
1849.

NOTES AND COMMENTARIES
ON
PUBLIC HEALTH
AND
THE SANITARY LAWS OF ENGLAND.

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NOTES AND COMMENTARIES.

ON PUBLIC HEALTH AND SANITARY LEGISLATION IN ENGLAND.

AS the life and health, as well as the physical and moral condition of large masses of the people in our towns and cities, depend upon the proper administration of sanitary laws, a very grave responsibility rests with those local authorities to whom is mainly entrusted the carrying out of measures relating to the safety and well being of their neighbours. Every one has, therefore, a direct interest in sanitary reform, and in the noble purpose which it is designed to accomplish.

This subject cannot be illustrated without going into a few details. It will, therefore, be instructive to give here some of the most authentic facts which the history and present state of sanitary science present; information which, we trust, will enable many of our readers to bring into action the spirit and intention of those sanitarians whose labour and experience entitle them to credit.

The economical aspect of the question has been again and again put forward.

Lord Shaftesbury once said, and it is short of the truth, that if the population of our large towns were placed under sanitary conditions, the poor rates in a few years might be reduced at least £2,000,000 per annum. One small village could be named in which four widows and sixteen orphans had become permanently chargeable to the rates by deaths from preventible disease.

Dr. Lankester, another eminent authority, says, "thousands and tens of thousands of lives are to be annually saved, the misery and wretchedness of thousands of homes are to be spared, the physical, intellectual, and moral welfare of our nation is to be increased, by the systematic adoption of measures for saving the health and lives of our fellow creatures. Our national wealth,

as well as our national strength and national religion, are all dependent on this question; and those communities which neglect the public health are as unpatriotic as they are criminal."

Some years since it was remarked by the able officer of the Privy Council, Mr. Simon, and his *collaborateur*, Dr. Greenhow, that "if only a few sanitary faults could be corrected throughout the country, the average annual mortality might, at the lowest calculation, be reduced by more than 100,000 cases. Absence of proper drainage and scavenging; impurity and insufficiency of water supply; overcrowded, ill-ventilated, uncleansed dwellings; unwholesome conditions connected, but not necessarily connected, with the pursuit of certain branches of industry; neglect of children, incidentally but not unavoidably, arising from the employment of mothers in factories; omission or malperformance of vaccination. These few heads indicate our chief sanitary evils, and their average annual fatality may be safely reckoned at more than the hundred thousand deaths. Seven-tenths of this excess are suffered among the inhabitants of large towns, who do not constitute half the population of England; mainly because they are the chief seats of those very fatal diseases which are engendered or multiplied by filth in one shape or another. The remaining three-tenths are suffered by the inhabitants of small towns and country parishes."

Besides, nothing is more certain than this; that adverse sanitary conditions produce in a short lived adult population, wretched, improvident, and intemperate habits; incapacitating for the support of an independent social position, and thus forming a costly burden to ratepayers.

Most desirable, therefore, is it that the principles and nature of the sanitary movement should be well worked out; that every one should endeavour to assist the authorities in carrying its laws into operation. It is, however, in vain that well-to-do persons are told they must be held responsible for the removal of causes producing misery, sickness, and death among their neighbours if, at the same time, it is not shown clearly that their own interests, as well as the welfare of their neighbours, are materially concerned. The ultimate success and application of sanitary measures will depend most upon the "pounds, shillings, and pence" view of the matter. Fortunately, it can be shown to practical men, when they are disposed to go into the investigation with a willing mind, that it is infinitely more costly to take charge of a sickly and neglected population of paupers and criminals, than to institute intelligent and humane methods of assisting and even maintaining in health all who have no ability to do it for themselves.

The poor law rests more upon this financial basis than upon any fundamental doctrines of christianity. To hinder impro-

vident men from going to starvation and from that to crimes,—to crimes by which they become dangerous to life and property,—it has been deemed wise and just to have all property legally taxed for their support when they cannot or will not support themselves. Measures for the repression of pauperism and for the lessening of crime ought to go hand in hand ; for crimes stand in the same relation to the pauper mind as diseases do to the body ; both are disorganized states of the social fabric, mainly brought about, either by ignorance of natural laws and of duty, or by helplessness from drunken and improvident habits. The poor laws are essentially sanitary laws.

Sanitary laws, then, extend to the mind as well as to the body ; they assume that every one has a right to the protection of the State, with regard to certain means essential for the enjoyment of life. Fresh air and pure water should be free to all. Food and clothing should also be attainable to all under better conditions than those now in force, while it must likewise be admitted that those especially who cannot and will not look after their own health, must submit to the authority of the law in order to prevent their “drifting to the bad,” and becoming a burden to their fellow countrymen or neighbours forming the ratepaying community.

One of the greatest advantages of the Sanitary Act of 1866 is the compulsory powers created by it. It not only enforces local authorities to devise means for protecting public health, but, almost for the first time in sanitary legislation, it enacts that necessary works *must* be executed either in accordance with some previous Acts or under the present Act ; such works, if not undertaken by the local authorities, can now be ordered by the Secretary of State, and the cost charged upon the rates of the borough or district. (Sect. 49.)

There are also various duties which, in former Acts, were only optional, but which must now be brought under the cognizance of law. We may mention the inspection and formation of special drainage districts, with a view to establish and regulate water supply and sewerage ; the ventilation of houses, factories, and workshops ; the cleansing of, and removal of dangers arising from, the increased overcrowding and infectious condition of certain localities. Further, the inspection of workrooms, in which people are employed in poisoned atmosphere and under circumstances prejudicial to health, is now a part of the duties of a sanitary officer under the clauses of the Act.

Previous to the passing of this measure it was sometimes not easy to define who were the real protectors of public health, and there still exists far too indefinite an authority for putting into execution matters of the greatest possible importance. In boroughs the municipal corporations have always had certain

powers, which they still possess, to carry out measures for protecting public health; in towns where the Local Government Act has been adopted, a board of commissioners takes charge of sanitary measures; and in other places, where neither of these bodies exists, the boards of guardians, assisted by a sanitary committee—or, in small parishes, churchwardens and overseers alone—have power to act as sanitary legislators.

“The existing medley of local boards and jurisdictions has become a fruitful source of rivalry, opposition, and impediment to sanitary action. The conflict of petty authorities has led to divided, and therefore weakened, responsibility; it has fostered indifference, if not resistance, to the demands of the wiser inhabitants, and it has often resulted in neglect of the professed and prescribed objects of sanitary administration.”*

We find the following bodies are, more or less, charged with duties in connection with the sanitary laws:—

1. The Privy Council; 2. The Secretary of State; are empowered to institute certain proceedings. It is true that these central authorities only act in case of default in the local administration, and the first mentioned principally in relation to water supply and drainage; while “the Lords and others of Her Majesty’s most honourable Privy Council” have jurisdiction in dangerous and infectious diseases. (Sects. 29, 40, 52.)

3. Town councils or corporations of boroughs or cities.

4. Local boards or commissioners acting under the Public Health or Local Government Acts.

5. Boards of guardians, vestries, churchwardens, or overseers, acting for parishes.

6. Magistrates acting in petty sessions.

The Sanitary Act speaks of “sewer authority,” “nuisance authority,” and “local boards,” and it is not easy to say which of these or of the before-named authorities has best right to act; and the jurisdiction of one body frequently interferes with that of another. A large borough sometimes includes two or more parishes, and would apparently be the most eligible authority for sanitary management. In other instances a parochial boundary or poor law union is more suitable, by reason of its jurisdiction extending over the whole of certain civic as well as rural districts, while that of the borough corporation includes only a part, and often a very limited portion, of the town or city.

* W. H. Rumsey, Esq. in *Journal of Social Science*, October, 1866.

ON THE CONSTITUTION OF AUTHORITIES.

IN treating the subject of qualification and constitution of local authorities, we find various opinions prevail. Independent observers come to the conclusion that a vast number of the members of vestries, boards of guardians, and nuisance authorities, are very unfitted for the discussion and execution of sanitary measures. A great authority, Mr. Rumsey, says:—

It is generally observed that cultivated intelligence, professional knowledge, scientific research, philanthropic zeal, are rare constituents, almost always in the minority ; while the claims of labour, the safety of the helpless, and the welfare of the unrepresented masses—women and children, I mean especially,—are considerations which are understood to carry but little weight in the decisions of these corporate bodies.

The remark may appear to be too severe, but the writer of this passage does full justice to the great constitutional principle of local self-government, the boast of the English nation, while he believes it possible to improve the organization of local bodies in such a manner that they shall more faithfully represent the intelligence and philanthropy of society. So long as members of parochial vestries require, as their only qualification, the payment of a moderate amount of poor rate, they must necessarily be, to a great extent, imperfect. The authority above cited very pertinently asks the following questions:—

If moral worth, intellectual cultivation, freedom from sordid views, and zeal for the welfare of the masses, are desirable qualifications for those engaged in local administration, do these qualifications specially belong to occupiers rated at 40l. ? Are there not persons of condition and intelligence who are not occupiers at all, in a legal sense ; highly educated residents in furnished houses, and well-informed artizans in lodgings, likely to possess the endowments mentioned ? If such odious and fallacious distinctions are not utterly opposed to the diffusion of knowledge, to the prevalence of christianity, and to the progress of social improvements, they are, at all events, revolutionary, because they tend to create discontent among the working classes, who are stigmatized as unworthy to deliberate on matters more seriously affecting their welfare than that of any other class of society.

One thing is certain ; that in London, and most probably in the provinces also, the lower class of ratepayers and owners of small property are generally able, by a majority in council, to oppose and frustrate altogether those propositions or schemes which the far-seeing and most intelligent members are disposed to adopt.

On the continent, at least in France and, recently, in Italy, under

the new *régime* of 1865,* it is a *sine quâ non* that persons who hold office under local boards shall be those whose experience can be of aid in the deliberations of the council. Hence it happens that in France their decisions are held in such high estimation that they are seldom reversed, although they have to be submitted to a central authority in the state.

In every department of France a local commission is appointed, whose duty it is to advise the executive. Here we find a strong contrast, and a comparison shows us the favourable position in which we stand with regard to certain privileges that have been granted to Englishmen. In France the members of these local boards are named by the prefect or chief magistrate from a list of candidates presented from each locality by the mayor or, in rural districts, by the sub-prefects. The candidates are chosen from the most honourable inhabitants; and in every commission there must be at least two physicians, a chemist, a qualified veterinary surgeon, an architect and engineer, that is, a surveyor. If there are no candidates in these latter professions, a choice is made of gentlemen engaged in mechanical or manufacturing establishments, but these are generally qualified as engineers or mechanicians by special education. The members are elected for six years, and one-third of the number go out annually, but are eligible for re-election. The meetings are held monthly, or more frequently on special occasions. They collect all information affecting public health in their department or district, and draw the attention of the prefect to any causes of unhealthiness that may exist, suggesting means for their removal. They are called upon to take part in the issue of regulations instituted for the condemnation of insalubrious habitations, and to take steps for the execution of laws and special measures against epidemic maladies, and to procure prompt assistance for those who suffer or are likely to be attacked. The documents relative to mortality, causes of deaths, the topography and statistics of disease, and every thing that concerns health in the district, are sent by the prefect to the chief of the council of public health, who is charged to arrange or complete them, and, if proper, to embody them in his reports.

Higher educational or property qualifications ought to be insisted upon by our ratepayers in their selection of representatives, where it is not otherwise regulated by Parliament under their municipal acts. Local boards of health generally stipulate for a qualification of a £1,000 worth of property in the parish or an equivalent rental, but it may yet become desirable that in all instances some better legal provision shall define the qualifications

* Legge 20 Marzo, 1865. Sulla Sanita Publica Corredata dai Regolamenti Istruzioni e Circolari Ministerale che alla Medesima si Riferiscono. Milano.

of persons acting upon local boards, if electors themselves fail in the judicious exercise of their prerogative. Unless a ratepaying community vindicate the honour and dignity of parish vestries by selecting persons more qualified by education, scientific acquirements, and knowledge of the social condition of the poor than those at present selected, it will not be surprising if, in some forthcoming legislation, the qualifications of members of local boards be better regulated by law. Indeed, this action of central authority in certain clauses of the Sanitary Act (sects. 6 and 49) which enable the Secretary of State or the Privy Council (sect. 52) to interfere in local matters, is by no means calculated to work amicably in its present shape. There will, in all probability, be some contentious opposition and delay if, in the execution of works desirable to be carried out with promptitude and in a spirit of unanimity and good faith, the Secretary of State has to institute a formal investigation, and to exercise his power to annul or modify the boundaries of any special drainage district in such manner as he or his representative may think proper.

During the next few years these battles for supremacy will occasionally have to be fought between local and central authorities, unless the political situation of both governing powers be greatly amended or better defined by law and superior intelligence. For the safety and prosperity of a nation the two elements are essential features of constitutional government; local action guided by persons of sound judgment, good education, and aptitude for public business, will always command respect and confidence; while governmental action is equally beneficial in furnishing costly statistical data and reports containing suggestions of an importance which can only be conferred by a central supervision and by access to the records and transactions of local boards. It is for the good of all parties that this interference should exist; and if occasionally the imperial government should appear to influence the proceedings of local authorities, it is never intended to supersede or paralyse that independent public spirit which leads to healthy action.

The office of a poor law guardian and that of a town councillor require an amount of intelligence and a spirit of independence for the exercise of the functions that devolve upon those who hold these offices, equal, if not superior, to that required for the fulfilment of the duties of a county magistrate. It would be well that none of these appointments be given but to men whose reputations are held in honour and estimation by their fellow citizens.

SANITARY LEGISLATION.

IN studying the clauses of the Sanitary Act of 1866, and in endeavouring to interpret the meaning and intention of new powers created, or additional force imparted to former Acts, it will be necessary to revert to the whole series of Acts passed, mainly within the last twenty years, during the period of the so-called sanitary movement.

The tenor of nearly the whole of these Acts is to give to local authorities power to regulate and protect their own affairs, and, more or less indirectly, the interests of the public. The Public Health Act of 1848 was thought, at the time of its passing, to be a most comprehensive and complete measure. It appeared to give to one-tenth of the ratepayers great powers for making enquiries into water supply, sewerage, &c. in towns most fitted for the adoption of the Act, but it was fettered with many conditions that entirely frustrated the objects it was designed to accomplish. For instance,—the first obstacle to encounter (sect. 8) was that the Act should only apply to towns in which the registrar's returns showed a mortality for seven years of 23 per 1000. This Act was, therefore, after ten years trial, superseded by the Local Government Act of 1858.

This Act, very carefully drawn up, includes the most important provisions of the Public Health Act, besides many other stringent and useful clauses. It may be adopted at the requisition of twenty ratepayers or owners of property, who may call upon the mayor, chairman of commission, or churchwardens and overseers, to constitute local boards in all places where they are needed for the administration of sanitary and other public works. The success which has attended the working of this Act is by no means what was expected. The fault does not lie with the legislature, for we find but comparatively few places have yet availed themselves of provisions for evils of grave sanitary mismanagement,—evils which this Act is so well calculated to remedy.

In 1855 the Nuisances Removal Act amended the Diseases Prevention Act of 1848-9, giving increased powers to town councils, improvement committees, and local boards—including guardians and overseers of the poor,—and to surveyors of highways; giving also the power of appointing an inspector of nuisances. The boards of guardians throughout the country, who were best acquainted with the locality and the nuisances in their districts, and who have always had the best machinery at command for putting this Act into execution, have rendered the greatest possible

service ; but, on the other hand, it must be confessed that great difficulties have been occasioned by the reluctance of magistrates to enforce penal clauses.

Many other Acts were passed between the years 1851 and 1859, and amended again in 1862. Some of these relate to the metropolis only, and one of the most important of them is undoubtedly the Metropolis Local Management Act, which gives power to vestries and district boards, and, above all, to the Metropolitan Board of Works, for the construction and management of the Main Drainage of the metropolis and the Thames Embankment. But in order to show at one glance the numerous laws now in force and the gradual advance of sanitary legislation in England, we have appended a list of the Acts, bearing upon the subject, which have been brought into operation during the last half century.

The Sanitary Acts here referred to, with the Dates of Passing and of their Amendments, up to the present time, are the following:

- Public Health Act, 1848. Sanitary Act, 1866.
- " " (Vesting powers of, in Privy Council) 1858.
- Local Government Acts, 1858, 1861, 1863.
- " " (Loans for Public Works), 1863, 1864.
- Paving, Draining, Cleansing, Lighting, &c. of Towns, 1847.
- Regulation of Markets and Fairs, 1847. Police of Towns, 1847.
- City Sewers Act, 1848, 1851.
- Metropolis Water Act, 1852.
- " Local Management and Main Drainage Acts, 1855,
- 1856, 1858, 1862, 1863.
- " Building Act, 1855.
- Sewage Utilization Act, 1865.
- Conservancy of the Thames, 1864, 1866.
- Diseases Prevention Act, 1855.
- Quarantine Act, 1826. Amended in Sanitary Act, 1866.
- Contagious Diseases Prevention Act, 1864.
- Nuisances Removal Acts, 1848, 1849, 1855, 1860, 1863.
- Infectious and Contagious Disorders of Cattle, 1848, 1853, 1866.
- Vaccination Acts, 1840, 1841, 1853, 1861.
- Common Lodging Houses Acts, 1851, 1853.
- Lodgings and Dwellings for Labouring Classes, 1851, 1855, 1866.
- Public Baths and Washhouses, 1846, 1847.
- Burial and Cemetery Acts, 1852, 1853, 1855, 1857, 1862.
- Public Improvement of Towns Act, 1860.
- Ornamental, Play, and Recreation Grounds, 1859, 1863.
- Protection of Commons near the Metropolis, 1866.
- Adulteration of Meal, Flour, and Bread, 1836.
- " of Food and Drinks, 1860.
- Bakehouses Regulation Act, 1863.
- Seizure of Diseased and Unwholesome Meat Act, 1863.

Chimney Sweepers and Chimneys Acts, 1840, 1864.

Smoke Nuisance Acts, 1853, 1856.

Sale of Arsenic, 1851. Alkali Works Act, 1863.

Gunpowder and Fireworks Acts, 1860, 1861, 1862.

Safe Keeping of Petroleum, 1862. Nitro-glycerine, 1866.

Qualification of Pharmaceutical Chemists, 1852.

„ of Practitioners in Medicine, Surgery, &c. 1858,
1859, 1860, 1862.

„ of Apothecaries, 1815.

Various Lunacy Acts, 1845, 1853, 1855, 1862.

Safety in Mines, 1842, 1860, 1862.

„ Factories, 1824, 1834, 1842, &c. to 1864.

The result of these various measures upon certain portions of the population can be distinctly traced by a decrease in the standard of mortality, varying from three or four to ten lives saved out of every thousand, in several large towns in which those measures have been adopted; moreover, their beneficial effects are shown in an improved state of health and comfort in the inhabitants, who are either almost free from epidemic maladies, or suffer materially less during any outbreak.

MEDICAL OFFICERS OF HEALTH.

THE need of an officer of health in connection with local boards is now generally recognized.

The duties of such an officer have nowhere been better defined than in the instructions issued some years ago by the late Board of Health*; but the functions he has to fulfil are so important in their nature, and require qualifications of a character so peculiar, that it would be for the interest of society were the government to institute professorships of Hygiene in all the universities of the country.†

A competent officer of health should not only possess high qualifications for the practice of his profession, but special knowledge of medico-legal and sanitary questions. He should, moreover, possess exact knowledge of the causes of disease and

* Powers and duties of local boards of health and their officers, in minutes of instruction by first Board of Health in 1851. *Baker's Laws of Health*, p. 629.

† This proposition has been ably advocated by Mr. Rumsey, of Cheltenham, the author of a most admirable work, entitled *State Medicine*, which ought to be in the hands of every one concerned in parochial administration.

mortality in all parts of the kingdom, under various circumstances and in connection with the different occupations of the people. Especially should he be familiar with those diseases peculiar to the district in which he himself resides. Such qualifications are necessary in order to furnish reliable information both to the public and to the local authorities with whom he has to act.

The registrar of births and deaths should give him weekly returns of the nature of diseases, and of the ages, and addresses of persons who have died. Where epidemic diseases occur, inquiries into the sanitary state of locality or dwellings can be forthwith instituted, by which nuisances may be detected and promptly removed, and extensive mischief thereby frequently averted.

Periodical statistical returns should also be made to the officer of health from hospitals, workhouse infirmaries, prisons, schools, and all institutions in which a large number of persons are congregated. Every district ought to possess a sanitary survey in maps, on which might be marked places where sickness or mortality from preventible causes have occurred; or where prevail, more or less, nuisances of imperfect drainage, deficiency of water-supply, defective ventilation, overcrowding of dwellings, or the ill results of noxious trades.

The officer of health will very frequently be called on to discuss, in connection with an architect or engineer, the most approved principles for ventilating and warming public buildings, such as assembly rooms, churches, chapels, and schools, or factories, workshops, and private dwellings. In populous places he will have under his immediate direction an inspector or inspectors of nuisances, whose time will be, more or less, occupied in visiting and in recording the result of his observations on the condition of houses used as private or lodging-houses; of factories, cow-houses, stables, and slaughter-houses; of churchyards, public pumps, cisterns, and water-supply; drains, gullies, and outfalls; cesspools and urinals, or various other works to be carried out for the maintenance of health within his district. (See p. 74.)

Besides these duties, the officer of health is generally charged to examine into and report upon the quality of gas, of water from springs, of water in reservoirs and pumps, and of the meat exposed for sale in markets; upon him it will also devolve to state the manner in which adulteration of various articles used as food may be detected and exposed.

So important is it for the public that this department of sanitary legislation should be well discharged, that in the city of Dublin and elsewhere it was thought desirable to institute a distinct office, in which are gentlemen acquainted with chemical analysis, and to them are entrusted reports and questions relating to the examination of gas, the analysis of water, the adulteration of food, &c.

The medical officer of health is also the authority most competent to suggest measures of safety against infectious diseases, and for the prevention of evils arising from the spread of contagious maladies, from the neglect of vaccination, from overcrowding in low neighbourhoods, from prostitution, and from excessive infant mortality. There are likewise numerous occasions on which his evidence is of great value in the determination of medico-legal questions and in the conduct of scientific inquiries. Above all, a monthly or annual report should be issued by him, detailing the result of his labours, with such statistical data as would clearly illustrate the sanitary condition of his district, and accompanied by such remarks and suggestions as it may occur to him to submit for the future consideration of local or municipal authorities.

The documents issued from time to time by the officers of health for the city of London, first by Mr. Simon, now head of the medical department of the Privy Council, and afterwards by Dr. Letheby; those of Dr. Mapother, for the city of Dublin, and of Dr. Trench, for Liverpool, are replete with interesting and valuable materials; with these, the annual report of the Privy Council and the supplementary report of the Registrar General in 1864,—a volume compiled to show in detail the consecutive records of ten years, the causes of death, and the comparative salubrity of every part of England and Wales,—are the basis of all recent sanitary legislation. They should be familiar to all who hold office under corporations, vestrymen, and guardians of the poor.

The amount of special and undivided attention to duties appertaining to this office, renders the functions of a medical officer of health generally incompatible with the calls of private practice. There are, however, very few places in which the office is made independent of other means of living, and generally the appointments are held with permission to pursue private practice.

It has been found from ample experience that the duties of a public officer and those of a private medical practitioner in the same neighbourhood do not work well together. They are, indeed, incompatible. One gentleman reports that “a local officer of health is unwilling to oppose facts to the prejudice and supposed interests of those from whom he probably derives a livelihood. He is then tempted to overlook decided causes of malaria, to the injury of those who have no claim upon him. The officer of health, therefore, ought to be a medical commissioner, appointed by a general board to visit certain districts and act independently of local boards, which should be compelled to afford all the aid he requires.”

To secure a proper status for a staff of public officials with whom independent action is essential for the protection of public health, the appointments should come directly from either the

crown, the treasury, or secretary of state, and such a salary should be allowed as will induce the best men to accept office. In other departments of the state this rule is invariably adopted. What, for instance, would be the result of committing the choice of a county court judge to a local elective body? Why does the Lord Chancellor appoint and the treasury pay, these judges, but to secure their freedom from any local prejudice and also to ensure the most impartial administration of justice? The majesty of the law and the liberty of the subject are alike protected by the exercise of this prerogative and by permanence of appointment. The same principles ought obviously to be applied to officers of state belonging to public health instead of their being, as at present, detrimentally subordinated to local interests, with salaries so reduced by a system of competition, that men of skill and judgment will not enter into the struggle to obtain them.

Where a single parish or district would not afford work, or be enabled to pay for the services of such an officer as we have here described, it would not be difficult to extend the area by a combination of other parishes or districts, having in view the population and extent of works requiring sanitary inspection. Each district might range from 50,000 to 80,000 inhabitants; or, if registration districts were adopted, the average would be much less.

It would be well if, in those districts where the appointment has not already been made, the observations we have here offered were kept in view in the selection of an officer of health and in the regulation of his duties.

It will also be greatly for the interest of the community if those gentlemen who accept so important and responsible a position as that of guardian of the poor or town councillor make themselves more acquainted with the *rationale* of the laws of health, and with the ways and means for its conservation. It can hardly be expected that officers should efficiently discharge duties which are often unknown and unappreciated, even by their local governors; and in the ratio of their own knowledge has usually been the success of the attempts and failures in sanitary administration. There are many persons who would advocate a system of sanitary police in connection with the state, and a system either altogether, or to a great extent, independent of existing local authorities. This implies that "the care of the public health cannot be safely committed to authorities, the majority of whom are not educated or specially qualified for so weighty a charge." Local self-government is now, however, on its trial. The time has arrived for all who desire to take part in it to consider well the qualification of those entrusted with municipal powers, and they will therefore do well to qualify themselves for the more advanced state of things fast approaching. "Every Englishman who values his home and his country should bestir

himself to forward this beneficial and advanced state of affairs. Once let the full force of hygienic science be acknowledged, a very different condition of individual and social existence must necessarily follow; when, by such a happy result, we may hope to see disease lessened, epidemics of rare occurrence, mortality decreased, and the general health and longevity re-established.*

INSPECTORS OF NUISANCES.

THERE is another officer whose functions, if well performed, are second only to those of an officer of health, viz., the sanitary inspector or inspector of nuisances. These officers have the difficult and very delicate task to perform of attending to complaints made by inhabitants; they have also to find out all kind of nuisances and report thereon to the sanitary committee or officer of health; and in the daily round of their duty they have to take cognizance of, and make frequent visits to, a great variety of places. The following is a summary of what they have to report upon:—

Offensive matter from cesspools, &c. soaking or oozing into houses or cellars through walls and premises, prejudicial to health:

Visits to houses where fever or any contagious disease has occurred, and places in a filthy condition requiring white-washing, purification, or deodorization:

Reports of stagnant water and other nuisances on vacant land, houses, or other places; and leakage of water from pipes, cisterns, and drains in courts or houses; and deficiency of the water supply and state of cisterns or water butts where such reservoirs are in use:

Offensive accumulations of manure, cesspools full or overflowing, or where water running into and about them creates a dangerous nuisance; the trapping of sewers to prevent the emission of malarious gas; the condition of gullies, and obstructions to drains:

The cleansing of courts and alleys, back yards, and streets, and open places:

The state of paving and channelling in streets and courts, where stagnant and offensive water, filthy refuse, or deposits take place:

* J. J. Pope, in *Social Science Journal*, vol. 1, page 606.

The keeping of pigs in the neighbourhood of dwellings, prejudicial to the health of inhabitants or their neighbours : Overcrowding in tenant or lodging-houses, and in houses registered as common lodging-houses, and in workshops.

Besides these duties, they have to visit, under the orders of their superiors, slaughter-houses, knackers' yards, bone-boiling places, marine stores, and burying grounds, and to report on them in a systematic manner.

For the performance of each of these important duties with the least possible annoyance to the public, a very skilful co-operation with the police and with contractors, nightmen, and others has to be put in operation.

It may be added that the remuneration paid in the shape of salaries to men performing these very onerous duties does not in general amount to five-sixths of a farthing in the pound of the rates.*

HOUSE-TO-HOUSE VISITATION.

IT has been recently found by those who have a special knowledge of the sanitary requirements of the poorer classes that the most vigilant activity of officials is not all that is needful for the removal of nuisances. The searching out of causes of disease among the poor, and the removal of some of those that are "beyond their own control," are operations of the greatest possible economy as well as humanity. Hence it was that an order for house-to-house visitation was introduced in London in 1849 at the time of the cholera epidemic, and has since been retained by the Privy Council. One great result of this system is not only the detection of a mass of culpable and long-standing neglect of ordinary sanitary precautions on all sides,† but also the detection of premonitory symptoms of fatal disease. These are easily recognized; and attention to them in time will be certain to prevent fatal consequences. The primary symptoms and causes of such diseases as cholera, diarrhoea, dysentery, small-pox, and typhus, are now so well known that these diseases, like vermin or the

* Report of the Health Committee of the Borough of Liverpool, and of Sanitary Operations in the Health Department. By Thos. Fresh, Inspector of Nuisances.

† See Report on House to House Visitation, as performed in conformity with the regulations of the Privy Council. By W. S. Saunders, M.D., Sept. 1866.

plagues of ancient time, might almost be banished from our well-managed towns.

The first expense is trifling, compared with the cost which the diseases, if neglected or treated in the usual way, will entail upon guardians of the poor. It, however, appears advisable that one uniform plan or form should be issued from the Privy Council office.

SPECIAL SANITARY SURVEYS.

NOTHING has yet been accomplished towards the acquirement of a sanitary topography of towns or districts; but until this is done, very limited success will attend the efforts of sanitary committees. What Mr. Rendle* says on this point bears the impression of his great experience and good common sense:—

No part of the kingdom should be without its sanitary authority; and, as soon as possible, its conditions, so far as they regard health, should be recorded. Every building in every district, the poorest and unhealthiest at the very least, should be inspected by competent well instructed inspectors, who should be furnished with suitable forms. These should be arranged and kept by the sanitary authority for ready reference. A street, court, &c. would require for its permanent record a linear plan with measurements, as in the largest ordnance maps—its length and width—the height and number of buildings—its depth and superficial drainage—its paving—the water supply and company supplying. For its changing record, its present condition as to repair, cleanliness, frequency of sweeping, obstructions, water supply, &c. Houses would require linear plans, ground plan, elevation front and back, the name of the owner or agent, the rent per week or otherwise. The following particulars, *e. g.*, for a house of eight rooms:—Attics: front—Cubic space, number of adults, number of children; back—cubic space, number of adults, number of children; second floor, first floor, ground floor, in each the same particulars; general construction; condition as to repair, cleanliness, dryness of basement. As to airiness and dryness. House ventilation—back, front, roof. Windows—closed or made to open. Yard—its measurement and its paving. Provision for and frequency of removal of refuse. Water closet or cesspool—its site, condition, and for how many tenements provided. Drains—superficial, deep, construction, condition, and connections. Bad smells. Water supply—source, frequency, quantity, and character. Water receptacle—where placed, size, and condition. Trade or business carried on. Animals or fowls kept on the premises. Illness of persons actually confined to the house by any of the following diseases:—Fever, measles, scarlatina, small-pox, cholera, throat diseases, confined to the house or not confined to the house, diarrhoea, and whooping-cough. Date of deaths of any disease within two months, naming each, if any of those already mentioned. The condition and particulars of a whole district

* Public Health, in *Municipal Corporation Directory*, 1866.

could, in a reasonable time, be recorded. This, with suitable maps and plans, would enable the members of any sanitary board to know, with little trouble, the exact condition of any place within their boundaries—its healthiness or unhealthiness—past and present.

The vestry clerk of St. George's, Hanover Square, recently made an application to the Ordnance Survey for a plan of the parish, and Col. Taylor informed him that the Ordnance Department being engaged in making a block plan of the metropolis, it could be obtained on a scale of five feet to a mile, and that the whole expense would not exceed 100*l*.

WATER SUPPLY—FOUNTAINS—PUMPS AND WELLS.

MANY diseases are engendered, and others are increased in virulence, either from a scanty use of water or from impurities which water often contains and introduces into the system when taken as drink or used with food in a variety of ways. Above four pints of water are taken, on an average, daily by every individual. This amount passes daily into and through the body, making its exit by way of the lungs, kidneys, and skin, having in its intermediate journey most important functions to fulfil.

Wherever habits of civilization prevail, not less than twenty-five or thirty gallons of water should be supplied daily to every individual, for cleansing purposes and domestic uses alone.

The water supply of London, although tolerably well regulated by the City Sewers Act (sects. 31, 106, 107), is capable yet of much improvement. The Metropolitan Water Act, the Metropolitan Local Management Act, the Public Health Act, and Local Government Acts, confer ample powers to supply water in districts where it is deficient, and to force the supply at a rate not exceeding 2*d*. a week to each house. (Sects. 49, 50, Sanitary Act.) What, however, are the facts?

Inspections made during the year have shown that the poor in many cases have no water receptacle at all. In others, they have as make-shifts, tubs, jars, and barrels, wholly unsuited to the purpose; moreover kept in overcrowded living rooms and filthy yards. In other cases, the receptacles are in bad repair, rotten or tainted, without covers and placed in situations full of offensive emanations, where they must receive dust, smoke and the like. The receptacles usually are placed near to closets, privies, dust heaps, open sinks, untrapped drains, and in filthy sloppy yards. From these and other causes it is almost impossible to keep water other than in a tainted atmosphere, and to show how largely water absorbs deleterious and other gases 1000 gallons of water at the common temperature, are

known to absorb 26 gallons of oxygen, 25 nitrogen, 2500 sulphuretted hydrogen or privy and sewer gas, productive of fever, 1000 carbonic acid, 500,000 ammonia or the gas of urinals or from animal decomposition.*

Under these Acts, also, public fountains, pumps, wells, and cisterns may be made and supplied gratuitously in localities and circumstances requiring them. There are, however, many places not under the dominion of these Acts, as they apply only to places containing not less than 2,000 inhabitants. In other places, however, churchwardens and overseers may, on the requisition of three-eighths of the inhabitants, provide a well or pump out of the money raised for poor rates, the proceedings being sanctioned at a general meeting. The Sanitary Act of 1866 gives enlarged powers and greater facilities for securing the water supply in small towns, where formerly no very definite means existed. (Sects. 3, 11, 12, 13.)

It is now generally admitted that a great improvement in the purity of London water will have to be effected. Mr. Hankey, therefore, during last session asked for a select committee of inquiry, but, on the representation of Sir G. Grey, his motion was withdrawn. A plan is proposed by Mr. Bateman, C.E.,† to bring spring water from Wales, and by Mr. Hemans, C.E.,‡ from the Lakes of Cumberland. Some such plan will soon be required to meet the demands of the increasing population of London, unless other sources are soon found by the ten companies who now act as purveyors of water to the metropolis. Steps will also have to be taken to insure greater purity in the water-supply.

There is a wide field for the employment of capital in hydraulic engineering, for the time is not far distant when every small town and many country villages will be sufficiently enlightened to erect waterworks; and where at present other necessary sanitary works are not commenced, it will be a great saving of expense in earth work, digging, &c. to have water-supply, gas, and drainage all done under one authority.

Guided by numerous able reports and by the experience of local boards, it is not difficult to report the conclusions which have been come to. They may be thus stated :—Water should be provided pure, soft, aerated, and filtered; on the constant supply system, without cisterns; at high pressure, that it may be delivered to all parts of a house or premises, or used for extinguishing fires; it must be fit for drinking, culinary, washing, and other purposes; it should be supplied at the rate of not less than twenty-five gallons per head, and at the cost of from 2*d.* to 3*d.*

* Report on Water Supply. By W. Rendle.

† On the Supply of Water to London from the Sources of the River Severn. By J. F. Bateman, C. E.

‡ On the future Water Supply of London. By G. W. Hemans, C. E., and R. Hassard, C. E.

per week per house, or at about half the rate at present paid in the metropolis.

An agitation has already commenced in the metropolis, and on some future occasions, the same question will frequently present itself for discussion by the inhabitants of a locality, viz., to whose hands may the water supply be best entrusted? Shall it be a private and speculative arrangement leading, as it does too commonly, to a monopoly; or ought it not rather to be a public work for the benefit of all, in the hands of the local or municipal authority, and on such a footing of management as to render undesirable, or almost impossible, any competition? It is not in the interest of the public to look for competition by joint stock capitalists in the supply of water or gas. Where a great undertaking has to be initiated on a large scale, rival companies are not the best or cheapest purveyors to the wants of the community; and where the interests of capitalists are materially endangered a monopoly is generally the final result; hence it will not be wise or safe to trust to private or speculative enterprise.

The same principle applies to the cleansing of towns, the paving, lighting, and draining—duties which should always be kept in the hands or under the control of a municipality.

If any advantages can be made to accrue from profits, they are likely to be better applied to a reduction of taxation or in effecting some local benefit to the community.

The great inconvenience brought about to London traffic arises mainly from the inconsiderate working of rival companies in tearing up streets and pavement. The works of gas companies, water companies, and telegraphic companies, have each to be executed under a separate jurisdiction. Paving and drainage, too, will each work their will in their own time and way. Whereas by a concerted plan, in which the wants of the public would be consulted, and works of a national character undertaken by a board of works or a municipal body, the public interests would be advantageously protected, while grave impediments to street traffic and damage to trade would be easily avoided.

In this department of local administration the intelligence and discretion of members who sit on local boards will be sorely tried, and, it is to be feared, found wanting, when the time comes (and it is fast approaching) for them to protect rivers and sources from pollution, and to secure the benefit of pure and wholesome water for the people. Indeed, it may be looked upon as imperative that large districts should be embraced within one jurisdiction, with powers correspondingly great, if we are to legislate successfully on means for securing an economical supply of pure water. Further, local governments alone have no power to accomplish anything towards securing perfect drainage in larger areas than mere parishes, boroughs, or cities.

Instructive commentaries might be written upon other topics connected with water-supply, but space will only permit mention of a few. The *modus operandi* of water-poisoning as a probable cause of cholera,—the pollution of rivers, streams, and surface wells,—the advantages of processes for softening hard waters, and for filtration,—these are all subjects that require distinct treatment for their elucidation, and will repay the trouble of any public man who may give them his attention. One great fact cannot, however, be passed over without notice. No artificial method has been discovered by which we can purify, for drinking and culinary purposes, water once infected by town sewage. By mechanical or chemical means such water may be given an appearance of purity, but it will be liable to putrify. Processes of deodorization and filtration cannot be relied upon to free water from the liability to breed epidemics in populations that drink it. There is only one way of rendering water, in large quantities, innocuous and free from contamination; and that is by the aid of the soil and of the roots of growing plants, which, by a beneficent provision of nature, have the power of abstracting all organic impurities from water.

DRAINAGE OF HOUSES, TOWNS, AND DISTRICTS.

(SECTS. 2, 3, 4, 5, 6, 7, 8, 9, 10, SANITARY ACT.)

THERE is no department of hygienic legislation in which the incompetence of our present sanitary laws is so apparent as that which relates to drainage and the utilization of sewage products. The most gigantic nuisances, such as the systematic pollution of natural water courses, are now created by “sewer authorities” themselves, who ought to be “nuisance authorities.” This must continue to be the case so long as no special enactments render it an offence against civilization to pollute the natural supply of water for the people, and, at the same time, make it compulsory to restore to the soil what actually belongs to it. The laws of health, the teachings of science, and the demands of agriculture, all invite us to carry out this first sanitary duty.

The best systems of drainage and cleansing, and the methods employed to dispose of waste matters, whether from sewage or from manufacturing processes, are only in a state of infancy. Much will yet have to be learned from experience and scientific investigation, before safe and permanent plans can be adopted. As a basis for these investigations and for future legis-

lation, much interest is attached to a recent work on the subject,* while the labours of the Rivers Commission, whose reports to Parliament on the water sheds and river basins of England will confer lasting benefit upon the country, will serve as permanent records in aid of engineering skill and operations for drainage on a large scale.† The committee recommend that the entire basins of rivers should be rendered free from pollution by legislative enactments giving power to the inhabitants of districts to compel and control local boards to make their sewage innocuous by its application to land for agricultural purposes. The solution of this question involves the interests of every one, and upon it the purity of our river waters must be dependent. One result can readily be foreseen, viz., that local boards must often surrender their petty governing powers to corporations having a wider sphere for the administration of drainage and water-supply. Districts,—called parishes, townships, or boroughs,—have nothing in principle to entitle them to special regulations for draining and water-supply; while distinct local boards must become so many sources of rivalry and opposition to the execution of works which must have a very wide range of utility and one distinct object in view. Special engineering skill and works of any magnitude, in order to be effective, cannot be limited to single parishes or towns; they must be undertaken with relation to whole districts; while the cost and assessment, as well as the resultant benefits, must be distributed over large areas.

In a debate on the pollution of rivers, opened at Manchester this month (October, 1866) by Dr. Stevenson Macadam, the following resolution was unanimously adopted, on the motion of Lord R. Montague:—

That, while it is necessary, to remove as speedily as possible, excreta and refuse from houses, it is advisable to procure, eventually, compulsory legislation against the pollution of rivers by the sewage of towns; and, that the council of the association be requested to petition Parliament to compel towns and manufactories to use all practicable means for arresting such pollution.

The great difficulty which now exists, and for which neither the Sanitary or other Acts present any practical remedy, is to provide a convenient method for united action.

It is true that in the present Act (sect. 40) some provision is made for the combination of two or more boards of guardians; yet we have no laws for providing, in a summary way, the united action

* On the Sanitary Management and Utilization of Sewage; containing details of a System applicable for Cottages, Dwelling Houses, Public Buildings, and Towns, and Suggestions for the Arterial Drainage of the Country, and the Water Supply of Rivers. W. Menzies, Deputy Surveyor of Windsor Forest and Parks.

† First Report of the Commissioners to inquire into the best means of preventing the Pollution of Rivers. (River Thames, vol. 1.)

of local bodies in large districts, who might with advantage carry out public works such as the many small and less effectually organized bodies cannot possibly attempt. Special drainage districts may be formed in accordance with sects. 2 to 10 of the Sanitary Act; but those who know the difficulty of organizing an effective working power will be surprised to find any great achievements under the powers of the present Act.

CEMETERIES, BURIAL GROUNDS, AND MORTUARY CHAPELS.

DURING the last fourteen years, since the passing of the first Burial Act in 1852, a great sanitary revolution as regards the burial of the dead has taken place throughout the country. An interesting illustration of the cordial manner in which an extensive social reform has been received by the ratepayers of England, is afforded by the fact that a sum exceeding 1,400,000*l.* has been raised for the establishment of parochial cemeteries.*

The establishment of new cemeteries is determined by the churchwardens calling a meeting of the vestry and afterwards applying to the Secretary of State; or local boards of health or improvement commissioners may, by orders in council, exercise the functions of a burial board in one or more parishes; but, for the innumerable laws and bye-laws relating to the interment of the dead, reference must be made to a special work on this subject.†

Local boards of health have hitherto alone had the power of erecting mortuary chapels (Public Health Act, 1848, s. 81), but up to the present time they have scarcely exercised their prerogative.

Public opinion is, however, gradually awakening to a sense of the impropriety and danger arising from the custom of retaining a corpse for several successive days and nights in an apartment where a family is under the necessity of sleeping, taking its meals, and carrying on its usual avocations. Besides the depressing influence of fatigue and grief at that particular time, with the uneducated poor habits of intoxication often intensify the mischief. This is more especially observed in the Irish poor during the continuance of a funeral wake. Certain rites and

* See *Baker's Laws relating to Public Health; Sanitary, Medical, and Protective*, page 89.

† *Baker on the Laws relating to Burials.*

ceremonies after the death of their friends are now practiced under most unhealthy conditions; and it is no uncommon circumstance to find infectious disease propagated to an alarming extent. Places, therefore, for the reception of the dead, otherwise than at the workhouse, may have to be erected by a nuisance authority, and regulations made for their support and management. (Sanitary Act, 1866, s. 28.) The law is still, however, powerless in many cases, for the authorities have only power to order the removal of a body to a mortuary chapel when the death has arisen from an infectious disease, or when the corpse might, from other causes, be detrimental to the living, a matter not always easy for an officer of health or a medical practitioner to decide and put into action. The prompt and compulsory removal of dead bodies can, however, only be enforced, under certain circumstances, by a justice, acting on a certificate signed by a legally qualified medical practitioner. (Sanitary Act, 1866, s. 27.)

In several countries on the Continent it is illegal to retain dead bodies among the living beyond a certain short period, and the corpse is, therefore, removed to a place for the reception of the dead during the interval between death and burial. These places for reception are contiguous to cemeteries, and are open to the public, and access of friends and relations to view the departed is permitted.

Mr. Hutchison, the mayor of Liverpool, has generously offered £1,000 for the erection of a mortuary chapel in that town, and, in a letter to Dr. Trench,* makes the following very pertinent remarks:—

Apart from the inevitable consequences of such a state of things being most prejudicial to health, the practice of retaining the corpse within the chambers of the living, amidst filth, squalor, and wretchedness, begets a feeling of irreverence and indifference, and the abandonment of those religious feelings which ought to be associated with the obsequies of the dead. Nay, more—it has a positive demoralising and brutalising effect upon the minds of the people, and any scheme which has a tendency to lessen the evil is worth the experiment, even if it should prove abortive. I am fully alive to the difficulty and delicacy which surround the question. The poor feel as acutely as the rich the loss of their friends, and we must not hastily and perforce do violence to their natural feelings even in our attempt to serve them. Hitherto no plan has appeared to myself as feasible; but the scheme you have now in view goes far to arrest the evil, if the poor can only be brought to understand how much it is for their own advantage. So strong is the conviction forced upon my mind of the necessity of making an attempt to grapple with this frightful condition of affairs, that if you think you see your way clear to the adoption of your scheme, I will cheerfully undertake to defray the cost of erecting such a building as you propose.

* *Social Science Journal*, vol. 1, page 160.

PRINCIPLES OF VENTILATION.

IT can no longer be permitted for us to be ignorant of one of the primary laws of health—the aëration of the blood—better known as ventilation. The air we breathe is polluted in many ways. In crowded workrooms it is breathed over and over again, it receives the products of combustion from gas, and often those of noxious animal and vegetable decompositions. Ignorance of the value of fresh air has been the cause of most serious calamities. 147 persons were killed by asphyxia in one night in the Black Hole; 72 persons were found dead and many others dying in consequence of the closing, for a short time, of the hatches of a vessel in a storm coming from Sligo to Liverpool. Dr. Angus Smith and other chemists who have analysed the air, find as much as eight grains of carbonic acid in 1000 cubic feet of air; and it is asserted that the air of a closely packed railway carriage, that of a close bed room, or that from a filthy yard, contains from three to thirty times the amount of impurity contained in the air of a healthy open space.

The *rationale* of all this is, that in the process of healthy respiration, oxygen or vital air must be continually introduced into the lungs and carried to every part of the system, to keep the body in health and vigour.

The ordinary quantity of air wanted on the average every minute is about 400 cubic inches, from which four to six per cent. of oxygen gas is abstracted in the lungs, and at the same time an equal quantity of carbonic acid gas (a poison) is expelled from the lungs, with some five or six grains of the vapour of water. In one day eight ounces of carbon matter are got rid of in this manner by the lungs. The air contains about one-fifth part of oxygen. The object of ventilation is to introduce a fresh supply of this gas, and to remove the carbonic acid and other impurities from our rooms, shops, or public assemblies. Although oxygen from fresh air must be continually presented to the blood and carbonic acid expelled from it, the conditions vary under circumstances of age, sex, weight, and size of the body.

It is necessary to mention these points, as they are insufficiently known to those who are called upon to regulate and secure means for ventilation. The amount of cubic space required for the breathing purposes of each individual has been variously fixed by the army, navy, and poor law boards. Thus, we find from Dr. Parkes* that in barracks 400 cubic feet of space is

* A Manual of Practical Hygiene for the Medical Service of the Army, p. 67, &c.

allowed; in wooden huts, 400; in hospital wards at home, 1,200; in India, 1,500; in wooden hospitals at home, 600; in the metropolitan lodging houses, 240; in police cells and stations, 450; in sick wards of poor law infirmaries, 500; in day-rooms for healthy persons, 300; in Dublin registered lodging houses, 300.

The air ought to be changed about twice in the hour at least. Care must be taken that fresh air, when admitted, should have a temperature not much lower than the internal air of the room, otherwise it will cause a chill, with some discomfort and danger to inmates of dwellings excessively ventilated, who soon "catch cold." They then endeavour to stop up every hole admitting air, preferring the close but warm and impure air of an ill-ventilated apartment to the discomfort of a cold draughty room.

There are many clauses in the present and former Acts relating to powers for ventilating houses, workshops, and public buildings. The Local Government Act, the Metropolitan Building Act, and the Nuisances Removal Acts, have clauses requiring owners and occupiers to remove evils prejudicial to health from imperfect ventilation; but while the certificate of a duly qualified medical man and an order from a magistrate were conditions, the law was seldom acted upon.

The difficulties to be encountered will tax the ingenuity of architects, surveyors, and medical officers. The great store of facts collected in the Privy Council Reports and in the recent Poor Law Report of Dr. Edward Smith may be consulted with advantage. Indeed, these and other similar documents ought to be in the board room of every parish in the kingdom; and without accurate data, many zealous men are but working in the dark, and spending precious time in fruitless discussions upon facts already well known.

OVERCROWDING IN DENSELY POPULATED NEIGHBOURHOODS, LODGING HOUSES, CELLARS, AND UNDERGROUND DWELLINGS.

AFTER what has been said in regard to ventilation, it is easy to comprehend the dangers to health that arise from overcrowding in human habitations.

The adoption of the Common Lodging Houses Act of 1851, the management of which was committed to the police in large towns, was soon followed by the most happy results. From these places, formerly the dens of fever, typhus has been entirely banished, and the ravages of other infectious diseases are now

happily less frequent than in many of the private dwellings of persons living in low neighbourhoods. The necessity of further legislative control over houses let out to more than one family is a point on which all the most competent authorities entertain not the least doubt. In New York the devastating results of impure air upon the health of the inhabitants of certain overcrowded districts of the city are so well known, that the disease has received a specific name, less elegant than expressive, the "tenant house rot."* As towns increase in commercial importance and in population, and as new openings spring up for the increased manufactories and traffic required, so will the demand for house accommodation also increase. Such accommodation should, therefore, be provided, if not by private funds, by public or commercial speculation. Overcrowding and many of the evils that lead to destitution are certainly, to a great extent, the effects of municipal neglect.

The mortality of cities and its relation to the density of population is so very remarkable and well established that the statistical results may be here quoted from Dr. Farr's Annual Report of the Registrar General (1864), arranged in five groups. He found the general mortality in 631 districts ranged from 14 to 33 deaths in 1000 living. Where the mortality was 14, 15, and 16, the population was in the proportion of 86 persons to a square mile.

17, 18, and 19,	172	"	"	"
20, 21, and 22,	258	"	"	"
23, 24, and 25,	1128	"	"	"
26 and upwards, the average density was 3399 persons to a square mile.				

It must not, however, be hence inferred that proximity of the dwellings of the people *necessarily* involves a high rate of mortality. Dr. Farr very properly observes that when any zymotic matter, such as variolene, scarlatinine, or typhine, finds its way into a village or street, it is more likely to pass from house to house than it is where the people are brought less into contact. The exhalations into the air are thicker; but, if adequate arrangements for water supply, drainage, and cleansing are secured, as they can be, the evils which now make dense districts so fatal may be mitigated. There are, in cities at the present day, many examples of densely inhabited houses, streets, and districts perfectly salubrious.

Foul air exists wherever there is a dense, ill-fed population, with filthy streets, yards, and courts; there are the worst cases of scrofula and consumption, with great mortalities from pestilential diseases, such as typhus, small pox, measles, and

* Report of the Council of Hygiene and Public Health of the Citizens of New York upon the Sanitary Condition of the City.

scarlet fever. These diseases, if not originated by foul air, are, as before stated, rapidly propagated by it. Besides the depressing influence of breathing poisonous air upon the health and energies of the lower classes, it produces a craving for alcoholic stimulants; while the gratification of this morbid desire tends to add immensely to the large army of drunkards, and thus indirectly increases the dependent and sickly portion of the population of large towns. To resist the inroads of drunkards, the best sanitary conditions for living in domestic comfort must be observed. No argument is now needed to convince the most sceptical of guardians or their officers of health of the necessity for powers to effect compulsory ventilation, with various domiciliary arrangements for securing cleanliness in certain houses let out in lodgings.

The most unequivocal expressions of opinion have been elicited on every occasion on which the subject of overcrowding has been discussed by the officers of health in the metropolis, and by members of every sanitary association. The Sanitary Act of 1866 has, therefore, almost for the first time in sanitary legislation, recognized the indispensable necessity of controlling, or at least regulating, the number of persons who shall occupy a house or part of a house used as a dwelling. The enforcement of laws to regulate the dwellings of the labouring classes is equally binding upon tenants or landlords; and two magistrates may, if they deem it necessary, after two convictions, empower the nuisance authority to close any place in such a manner as they may desire, at their own cost. (Sanitary Act, sect. 36.) It is, however, much to be regretted that the overcrowding clauses of the Sanitary Act of 1866 do not apply to small towns and villages. Here, at certain seasons of the year, such as hay time, harvest, and hop picking, or where large numbers of men at any other time are gathered together, as in railway contracts, where they have temporary accommodation in small cottages, barns, or out-houses, fever and other infectious diseases are propagated to an alarming extent, and the cost of maintaining such cases generally falls upon the local rates.

The President of the Privy Council not long since expressed a decided opinion favourable to this view, when a deputation waited upon him to urge the passing of this Act, and to suggest the amendment of certain clauses contained in it. Several means may be taken to lessen and prevent further evils from overcrowding and imperfect ventilation. One of these is a general dispersion of the population into suburban dwellings, and the destruction of houses now unfit for human habitation. To this end architects, builders, and capitalists should unite in devising and executing improved dwellings for the industrial class. It is to be hoped that those facilities for acquiring sites which the

Artisans Dwellings Bill, proposed by Mr. Torrens last session, or an amalgamation of this bill with that prepared by a committee of the Society of Arts on the dwellings of the poor, will not be longer delayed than next year, considering how urgently such measures are required to meet the growing wants of London and of most other large cities.

THE DWELLINGS OF THE WORKING CLASS.

THE improvement in the dwellings of the working people is one of the most urgent matters for the consideration of Parliament and of all who have at heart the welfare of the people. Good water-supply, drainage, ventilation, and all other means to advance the physical and moral condition of the lower class, are subsidiary and secondary to this great question. Truly horrible pictures of the abodes of the people, in all parts of the country, begin to startle the most apathetic into action. A conviction has arisen in the minds of thoughtful persons that unless something be speedily done to remedy the increasing and deplorable evils, a sad deterioration in the mental and physical powers of the race will soon become manifest in the lower ranks of the community. The demolition of houses for new railways, and the eviction from their homes of large numbers of artisans, especially the lower and unskilled labourers, has, in London, of late been the means of aggravating the recognized dangers of bad house accommodation by the great increase of overcrowding in neighbourhoods already too densely populated. At least 1,000 houses and 10,000 people were displaced in one neighbourhood before any other better accommodation had been found. This circumstance of itself has perhaps been most instrumental in bringing into existence an association called "The Evicted Tenants' Association," which promises to effect much good in bringing about a more lively interest in everything which belongs to this great question—the better housing of the people. A sanitary missionary has been engaged to make observations in various localities, and from his first report the following statements appear:—

In the block of buildings in Cow Cross and Peter's Lane, besides the dilapidated state of the whole, the pest-breeding stench arising from the accumulated filth and the overcrowded state of every house is such, that it is no wonder that cholera and fever reign supreme.

In Broad Yard, which consists of 17 houses, inhabited by 45 families, eight persons sleeping within a yard of the only closet in the court were attacked by cholera; of these eight but one recovered.

In Rose Alley, where 32 families dwell in 14 small houses, having again but one closet for the common use, Nos. 8, 9, 10, 11, and 12, are full of fever, —five cases were taken this week to Bartholomew's Hospital; other cases at home.

Frying-pan Alley, containing 12 houses, with but one closet for the whole, is inhabited by 28 families.

Pitt Alley, 12 houses, as usual, but one closet for the whole, shelters 26 families.

The water in all these tenements is supplied through a hole in the wall for one half hour daily. There is one house where the water has been entirely cut off for the past two years.

On the authority of the missionary it appears the whole of this property belongs to only two persons: one, a most influential vestryman of the parish, and the other a lunatic. These places were never entered by either a clergyman or a policeman; the only visitors to these wretched domiciles being the doctor and himself.

This account, however, only confirms the previous descriptions given by the medical officer of the Privy Council, and which, indeed, are too well known to every medical man who has had any connection with hospitals, dispensaries, and poor law unions. Nor is the topic a new one, for during the last twenty-five years have the philanthropic efforts of Lord Shaftesbury, Miss Burdett Coutts, Mr. Peabody, and many others been earnestly occupied upon it, and in suggesting plans for improved and model dwellings.

How very limited is the benefit which has accrued from all endeavours of philanthropy is shown by the fact that less than 10,000 persons have been provided for in model dwellings, and they are by no means a class of persons requiring charitable aid. These associations have, however, been most valuable pioneers in the work to be accomplished; and their examples, plans, and specifications of buildings* erected under the auspices of the "Society for Improving the Dwellings of the Labouring Classes" must ever be referred to with very grateful acknowledgements.

The difficulties to encounter in the real work of reconstructing the dwellings of the poor are partly of a financial and partly of a legislative character; but they are both matters which poor law guardians and ratepayers are equally bound to study. What are much wanted in every part of the country are houses in such a condition as shall be compatible with health, decency, and comfort, and which can be let at a moderate rent. But the manner in which such extensive building operations are to be accomplished admits of much dispute. Some persons are disposed to think that, after facilities have been granted for obtaining sites, in accordance with a bill proposed by Mr. Torrens, the efforts of private capitalists will suffice to meet the law of supply and demand; others trust more to municipal or parochial efforts, aided by the advance of money by the Treasury Loan

* J. Hole, "On the Homes of the Working Classes."

Commissioners,* although neither municipalities nor parochial authorities have yet done anything to encourage a belief that they will either undertake or successfully carry out the work ; while it is greatly to be feared, from antecedent experience of parish vestries, and from the fact that the interests of small landlords will be endangered, that this method is not likely to be prosperous. It would not unduly infringe upon vested interests of property were a law to make it penal on landlords and tenants permitting insalubrious conditions of their houses to exist after due formal notices were given from an officer of health stating how far such houses depart from the essential conditions requisite for a healthy habitation. It would also be perfectly justifiable, for the same reason, that ships should be regarded as dwelling places, and should undergo constant visitation and inspection by a competent officer of health ; nor should they be permitted to go to sea without a certificate, intimating that all due precautions had been taken for the protection of life and health as well as of property committed to them.

No great diminution of the high death rate of many large towns can possibly take place until the sanitary state of the dwellings of the lower classes is brought under the serious consideration of the legislature, and enactments made enabling municipal bodies and private speculators or companies to undertake, with advantage, on a large scale the reconstruction of workmen's dwellings.

It is very doubtful whether, as a commercial enterprise, the profits are sufficiently tempting to invite speculators to invest in these undertakings. The best example of a paying speculation is that of Mr. Waterlow, which is said to return six per cent. on the outlay ; but in towns where the site costs much, the return is rarely equal to more than four per cent. It is absolutely necessary that certain classes of persons should have their residence in the town near their trade or calling, yet there are many others who may conveniently reside in the suburbs of the town in which they have engagements during the day. It is proposed to build suburban villages and cottages contiguous to the great lines of railways, where access by cheap trains will offer to the working man the inestimable benefit of fresh air for himself and for his family, and the enjoyment of a garden. The co-operation of railway companies will be essential in carrying out this scheme, and it is to their interest that a large dispersion of the population amongst the villages adjacent to the great lines of communication should be encouraged.

The most recent attempt to unravel the problem of providing dwellings for the poor in towns is that of Professor Kerr, set forth in

* An act to make advances towards the erection of dwellings for the labouring classes, 29 Vict. c. 28.

an address before the Royal Institute of British Architects. There is a great deal of originality and truth in the views he maintains. He points out the fact that amongst the working population there are two very distinct classes; a superior class, earning good wages, and an inferior or much larger class numerically than is generally supposed, with incomes much smaller and more uncertain, constituting the great mass of labourers so called, and, properly speaking, the poor. Certain statistics show that in 1,500 abodes of the poor, $8\frac{1}{2}$ per cent. only occupy three rooms and upwards, 28 per cent. occupy two rooms, and $63\frac{1}{2}$ per cent. occupy one room only. He asks that the last statement be accepted in a businesslike way; while he shows, as a sober fact, that the *dogma of the three bedrooms*, enunciated by Lord Shaftesbury at Nottingham, is an accommodation beyond the wants of the poor; the cost, also, of this accommodation placing it beyond their means. What is really wanted? Why not single room accommodation? asks Professor Kerr, reminding his readers that the mediæval hall, up to the fifteenth century, was, even for the gentry of that period, the kitchen, dining, and drawing room, and that in it at night the inhabitants lay down upon straw or rushes that covered the floor. Indeed, single room accommodation still exists in many parts of Europe.

In alluding to the objection on the score of delicacy, the author suggests means to meet this difficulty, and in no way overlooks the evil influences of inadequate accommodation, or throws discredit upon the desire to provide for the poor whatever refinements are within their reach. The sort of room he proposes is 20 feet long and 17 feet broad; with one balcony, 4 feet wide, in front, and another, 8 feet wide, behind—this to serve for drying linen and doing “the little bit of washing” at home. The room is to have at the back a brick partition, extending 7 feet, forming two compartments, one or both of which may be closed by curtains or sliding shutters, thus forming two bedrooms.

The Professor is entirely in error in making light of the cooking range with oven and boiler (believing the good woman would prefer boiling the little water she requires in a saucepan), and in providing no copper, no sink, and in discarding all sorts of little superfluities; but he is much to be commended for the boldness with which he has proposed a dwelling of the simplest kind, but one calculated to keep clear of all that is not essential for economical housekeeping; to make a place that shall be easily furnished, cleaned, and attended to, and one in which a pound or two of soft soap, a scrubbing brush, a pail or two of whitewash, and a good day’s work would be sufficient at any time to “put the property in tenantable repair.”

The worst part of the scheme is to come; but here we may hope Professor Kerr errs in his calculations when he says that,

simple as is its construction, one of these rooms could not be built for less than 70*l.* ;* and for these rooms he assigns a rental of from 3*s.* to 6*s.* a week, the latter sum to include the use of a workshop on the ground floor.

The contribution of Professor Kerr is a document of great value, inasmuch as it is strictly businesslike in its view of the great question of how to provide, in the best form, what is wanted for the poor man's home, and how to provide it at a remunerative rent.

As excellent models of what has been done in France, and which may be imitated by private enterprise, public companies, and town corporations in this country, may be mentioned the Société Mulhousienne des Cités Ouvrières, the Familistère at Guise, the large workmen's home of M. Godin Lemaire ; while Mr. Salt, at Saltaire, and the Crossleys, at Halifax, have left nothing undone in their efforts to secure for the workmen in their establishments the comforts and advantages of a healthy home, with schools for their children, and baths, laundries, libraries, and dining and recreation rooms for those who desire such accommodation.

After all that can be done, either by private speculation or by enlightened national efforts, to improve or provide increased and better dwellings for those who can pay for them by the wages of honest labour, a large class will still remain, who cannot be drawn out from the lowest depths of filth and degradation. Amongst these, there are a great many whose earnings only admit of weekly payments barely exceeding 1*s.* 6*d.* to 2*s.* a week. It has always appeared to the writer that it would be a wise economy to partially relieve the difficulties these people have to contend with in the following way :—After placing all common lodging houses under police inspection, a step further might be taken by establishing in every district and town a public dormitory, where, on the payment of 4*d.* to 6*d.*, or, in default of money, the performance of an allotted task, every one shall have at command a comfortable night's lodging, with all the essential requirements for the conservation of health in the period of destitution. An outline of the plan is thus given by a writer in *The Poor Law Chronicle* :—

He would establish in certain districts or parishes of London and in every large town a public dormitory, under the control and management of boards of guardians or municipal authorities. The essential features of such a building would be a series of large and airy rooms, divided into a range of compartments, properly warmed and ventilated, on each side of a long wide corridor. Every such compartment should be about ten feet square, duly separated, and provided with a sink, a supply of warm and cold water, a bit of soap, a towel, an iron bedstead with plain bedding.

He estimates the cost of a clean and comfortable night's lodging, with a basin

* For instance, 40 rooms per acre \times 4 stories of rooms = 160 dwellings per acre, including roads and drains, would correspond with a value of 2,000*l.*

of soup or gruel night and morning, to be 6*d.* at most ; while the saving in health and strength might prevent a permanent outlay of pounds. Whereas by neglect and delay there follows debility, loss of work, starvation, fever, death, widowhood, orphanage, and high rates.

He would have the garments of these persons washed, dried, and mended before leaving: so that every day large numbers of unfortunate and willing persons of both sexes would be turned out to seek work, whose personal appearance would give them a chance of getting employment in various ways ; while under the present plan of treating destitution and vagrancy, they are totally ineligible and unfit to come into close personal contact with those who are disposed to give them work.

The following are some of the advantages of public dormitories :—

1. The great principle of our English poor law would be, in the first instance, fully carried out ; that of offering to every one in distress temporary relief and shelter in return for labour.
2. The health and morality of the lower order of persons, chiefly those living in the overcrowded parts of towns, in the lowest haunts of vice and misery, would be materially improved. These places, being the first and worst to suffer from epidemics, and tending to localize disease in its most fatal forms, would be materially relieved from the dangerous overcrowding that prevails in them.
3. A more effectual temporary relief and by accommodation to persons in the early stages of poverty, would tend to lessen the temptation to crime, and prevent street begging and prostitution.
4. That the temporary accommodation of a public dormitory offered to the destitute and houseless poor, and other persons out of work, especially females and liberated prisoners, is the essential and legitimate means of preventing crime. It would save many persons from starvation and disease, by preserving their strength and fitness for labour when it is offered to them, and thus permanently lessen, at a small cost, the pauperism of the country.
5. That a system of industrial registration, under a labour master, would be an easy and necessary organization to the plan of public dormitories or refuges, and would afford a means of finding employment for vast numbers of paupers who have otherwise no means or disposition to procure work for themselves.

CONTAGIOUS AND INFECTIOUS DISEASES.

THE influence and discretionary powers of local authorities are to be taxed with the difficulties which are inevitable in dealing with dangers arising from infectious and contagious diseases.

It was mainly owing to suggestions made by the metropolitan officers of health* that the following very excellent clauses were inserted in the Sanitary Act:—Section 27, giving power to remove the dead bodies of those who had succumbed to certain dangerous and contagious maladies, where the health of the

* “ Suggestions for Amendments in the Nuisances Removal Acts, Diseases Prevention Acts, Common Lodging Houses Act, Water Act, and Burial Acts.”

inmates of any house is endangered; and where the friends of the deceased do not undertake to bury the body within a time specified, the relieving officer will, under certain circumstances, be able to do so at the expense of the poor rate, and to recover the expenses of the same in a summary way from any person legally liable to pay the cost of the funeral. When also we find that 800 cabs, at least, in London are used every year to remove small-pox and fever cases to hospitals, it is high time that vehicles suitable for the conveyance of persons suffering from contagious maladies should be specially provided (sect. 24). Persons so suffering will now be subject to penalties for entering vehicles of public conveyance without due notice; and drivers are liable to a penalty for not disinfecting carriages in case of using them for such dangerous purposes. Sections 22 to 29 of the Act refer to just and necessary provisions for cleansing and disinfecting, and for the removal of persons suffering from any infectious disease, who are without proper accommodation or lodgings, in a room occupied by more than one family, or who are on board any ship or vessel. The institution of the proceedings authorised in these clauses will be so odious to the feelings of the lower classes, and more particularly to the Irish poor, that in all probability they will not be frequently resorted to. Besides, the order to remove is only permissive, and no one is compelled to convey or cause persons to be conveyed to hospitals or other places provided for the reception of the sick. The duty of effectually cleansing and disinfecting houses (sects. 22, 23, 24, 25, 29, and 38,) or parts of houses, as well as woollen and other articles of clothing or bedding likely to spread dangerous diseases, if not cleansed and disinfected by owners or occupiers, is to be carried out by the officers employed by the local authorities, who are empowered by sect. 23 to provide proper places, apparatus, and attendance where disinfection may be performed effectually and free of charge to those who are unable to carry out this duty. A legally qualified medical officer figures as one of the persons likely to be charged with this work. Does it not occur to some of our sanitary authorities that this is but a clumsy expedient for remedying the constantly recurring evils of overcrowding and the irresistible inroads of fatal diseases in all the densely populated places known as "fever nests"? From the results of what has been done recently in metropolitan parishes, and from the expenses incurred in treating the cholera epidemic, it will be obvious that nothing short of preventive measures on a large scale, rather than temporising expedients, ought to satisfy the ratepayers, who at present bear the burden of the sick and homeless poor.

In the section on "Baths and Washhouses," and in the appendix, will be found some remarks on the ways and means of

deodorizing, and on the true estimate in which anything relating to this process should be held.

Want of space forbids our entering upon many of those questions bearing upon the continued prevalence of contagious maladies amongst the population, viz., the laws relating to vaccination, as a means for preventing small-pox; measures for preventing the spread of typhus, scarlatina, cholera, and the evils of prostitution. In some of these departments of sanitary legislation nothing very satisfactory has yet been accomplished or even commenced.

In endeavouring to repress one of the most dangerous and contagious maladies—small-pox—the vaccination laws have struggled for some years with very partial success. In one year 2,000 persons died of the disease in London; while in some continental states small-pox is almost extirpated, the city of Copenhagen not having had a single death from this disease. So unsatisfactory and imperfect are the present results of vaccination in England, that the medical officer of the Privy Council proposes some fundamental changes in the system.

In London the annual average of deaths from fever is nearly 3,000, and this number has been increasing for some years. Yet this deadly disease is a preventible one—the offspring of putrifying animal and vegetable matter—a proof of sanitary neglect; and, in the opinion of some, it may be produced or destroyed at will. Experimental researches show that animal exhalations are of themselves poisonous, and that they cannot long be inhaled without producing exhaustion and disease; while it has been calculated that from the lungs and skin of ten persons a mass of matter is given out which, in one dwelling during a month, counting only twelve hours daily, would amount to 500 lbs. Mr. Rendle, in his "*Sanitary Lessons*," gives some graphic illustrations of "fever nests,"—their terrible dangers and their costliness to the ratepayers.

Let me tell you, he says, how this supply of parish fever cases is kept up to the Fever Hospital. July 29, 1864, a case was sent from a place in Southwark, Lansdowne Place, No. 11. In August, cases were sent from Nos. 35, 37, 38, and 39. In September, from Nos. 13, 18, 19, 31, 44, and 45. In October, from No. 4. In December, from Nos. 12 and 21. In January, from 25. In March, from Nos. 24 and 26. It did not leave these houses before 130 cases had been sent to the workhouses and other places. In another "nest," Henry Street, the fever passed from house to house until it visited thirteen, and out of which 31 cases were sent to the hospital. Now, all these were pauper cases, and were sent to the hospital at the expense of the parish; and the parish had to deal with the wives and children when men, as was not unfrequently the case, were attacked. No doubt, it would be cheaper, leaving the duty and humanity part out of the question, to stay the fever at its beginnings.

With these and other facts before us, how absurd appears the fear of trespassing upon individual freedom and liberty of action,

of asking for compulsory powers to insist upon the performance of social duties by the uneducated masses, who habitually neglect their own interests as well as the interest of those around them. It is real kindness as well as economy to prevent misguided people from governing themselves and going to the bad ; and to show them how to avoid those evils which ignorance entails, not only upon themselves, but upon the taxpaying community. Nothing but compulsory action can deal with these gross violations of social laws ; and nothing short of that will ultimately satisfy the rate-payers when they come to see how dearly they are called on to pay for the consequences of the filth, misery, and poverty of their indigent, incompetent neighbours.

QUARANTINE LAWS AND THE HEALTH OF SEAMEN.

THE very stringent penal clauses of the Quarantine Act (which in sect. 51 of the Sanitary Act are materially reduced) may be brought into action against owners and masters of vessels coming into English ports from places where yellow fever, plague, or cholera exists. This Act had, however, until very recently become almost obsolete. The outbreak of yellow fever, in August, 1865, at Swansea was the signal for the reconsideration of the law relating to quarantine ; and the report of Dr. Buchanan suggested to the medical officer of the Privy Council some modification of the existing practice.

The ship *Hecla*, from Cuba, entered Swansea harbour with one of her seamen dying and two convalescent of yellow fever, and within six days the disease appeared among the population of the town of Swansea. Out of twenty cases attacked, fifteen died. There is no reason to doubt that this yellow fever—a disease not generally thought to be common to English soil—may thrive here and commit great havoc in some of our seaports, under some state of the atmosphere favourable to its development. Indeed, another instance occurred in the month of November last, in which the Privy Council was called upon to exercise its powers of putting into action the old clauses of the Quarantine Act and the Sanitary Act of last session. The *Atrato*, on its arrival at Southampton from the West Indies, with a large number of passengers and seamen, was detained several days to perform quarantine, but not upon the old system. The sick and convalescent were transferred to another ship, in the belief that the vessel and those persons on board might spread the contagion—

a new and enlightened view of the matter—but for the carrying out of this, several days were lost in preparing for the reception of the crew and passengers. This idea, so judiciously acted upon, is expressed by Mr. Simon in the following paragraph:—

That yellow fever is a malarious disease rather than a true zymotic disease—a disease of the nature of ague rather than a disease of the nature of typhus; that the ship which spreads infection does so irrespectively of the persons who are in it, whether they be healthy or diseased; that the ferment of a local and impersonal infection clings to the ship from shore to shore, and breeds new malarious action to any congenial soil to which it comes; that the exceptional and contingent power of persons to spread the disease is generally but a very scanty and transient power, not only belonging to the sick, but to the healthy in common with them, attaching mainly perhaps to their dress, and equally predicable to all absorbent things which the atmosphere of the ship has imbued; this, it seems to me, is the doctrine of yellow fever which tallies best with our knowledge of facts.

These facts afford a very instructive lesson to authorities in our seaport towns, who may, sooner than they expect, be called upon to provide for an emergency that they are at present ill-prepared for. The old quarantine laws—intolerable as they appear to be—cannot yet be abandoned, as some persons believed would be done. But in the revival of stringent quarantine there is no reason to subject either passengers or crew to unnecessary hardship. After their removal to another ship, four or five days detention ought to be sufficient for preventing the propagation of infection by healthy persons; and as for the convalescents, who are to be sent to an hospital ship, the period of their detention must depend upon circumstances.

A more primary remedy, however, consists in the adoption of strict hygienic supervision of all ships and crews entering both home and foreign ports. This has long been needed; for the unhealthiness of sailors, owing to their insalubrious modes of living, and improvident and dissipated habits, predispose them to diseases which, it appears, accompany them in their marine transit, and which they import from one country to another.

One scheme, somewhat novel in its character, deserves special mention and praise for its usefulness—the institution of ship visitation, either during the prevalence of an epidemic or otherwise. This was suggested and carried out by Dr. Rooke, of the Seaman's Hospital Society, during the past summer and autumn; not only were many cases of cholera in early stages discovered and rendered amenable to treatment, but medicine and advice, given in due time, for premonitory diarrhoea had the most beneficial result.

There is now no regular and efficient sanitary inspection of seaports, and it is not easy to define who would be the authorities to institute such proceedings. Under the Sanitary Act of 1866

the declared authority for issuing rules and regulations for vessels having on board persons suffering from any infectious disorder are the Lords of the Privy Council, who may, if they deem fit, issue an order in council "with a view to the treatment of persons affected with cholera and epidemic, endemic, and contagious disease, and preventing the spread of cholera and such other diseases as well on the seas, rivers, and waters of the United Kingdom, and on the high seas within three miles of the coasts thereof, as on land." But expenses incurred in carrying out these orders and regulations are to be deemed expenses incurred in carrying into effect the Nuisances Removal Acts.

The sanitary condition of merchant seamen was, many years ago, commented upon by Mr. Mackey, but the recommendations made by that gentleman have not met with the attention they merit. The mortality of merchant seamen is just double what it should be. Dr. Norman Chevers* says:—

Unless I am very ill-informed, the work of sanitation for the seamen of our mercantile marine, which has never advanced very far, has now to be commenced *de novo*. In a scientific point of view this task is not difficult; it is simply a matter of justice, liberality, and common sense, displayed in imitating and, if possible, improving upon the sanitary arrangements of the royal navy.

Scurvy in seamen ought not to exist, as it is a purely preventible disease, the offspring of ignorance and of neglect to provision ships with lime juice and fresh victuals. Lime juice is, to a great extent, adulterated with vinegar and sulphuric acid, and often allowed to spoil for want of proper care in storing.

The frightful immorality of sailors, and the means to be taken for its reduction, also require some further consideration. The large amount of venereal disease in the navy, especially in the home station, has not materially diminished since the attention of the naval authorities was specially drawn to it.† In the home station 2,255 cases were treated, while an average of 212 men is constantly ineffective from this cause alone. Here are some examples:—The Royal Adelaide, 249 out of 670 men; the Victory, 263 out of 930 men; the Cumberland, 248 out of a complement of 1,220 men. The total loss of days' services from illness of all kinds is enormous, as shown in the following vessels:

Asia	.	.	.	10,285	days.
Revenge	.	.	.	13,223	"
Royal Adelaide	.	.	.	5,975	"
Victory	.	.	.	6,506	"
Cumberland	.	.	.	11,316	"
Total	.	.	.	47,305	"

* On the Preservation of the Health of Seamen.

† Statistical Reports of the Naval Medical Service in 1863.

Capt. Dawson, R.N., said in an address:—"The annual cost of sin in the two great services, as paid for in police and in medical establishments, is estimated, from official data, as little less than three million pounds sterling." Another fact comes out upon inquiry, viz., that the work done by immoral seamen can be accomplished by half the number of well-conducted men. Capt. Toynebee proposes that half the pay of sailors should be given to their wives and families; and he believes that there are no more impossibilities in the way of sailors marrying, having happy homes, and appreciating those who love them, than in the way of people who live on shore.

"It is painful to reflect," says one of the reporters, "that, on the very threshold of his entry into the service, in a seaport town of his own country, the seaman should be exposed to such a mass of festering disease as to render these localities more destructive to health than the pestilential rivers in Africa.

An attempt to check the temptation and dangers to which soldiers and sailors are exposed in the worst parts of our seaport and garrison towns, led to the passing of the Contagious Diseases Prevention Act of 1864, and its amendment in 1866, by which certified hospitals are to be established in the vicinity of towns where large numbers of the naval and military forces are congregated. Portsmouth, Plymouth, Woolwich, Chatham, Sheerness, Aldershot (this includes twenty-three parishes), Colchester, and Shorncliffe, in England; the Curragh, Cork, and Queenstown, in Ireland. But why London, Dublin, and Scotland should be excluded from the operation of an act by which so much good is calculated to arise, or why soldiers in those places should be exempt from the benefit conferred upon other garrison towns and camps, we cannot see any just reasons.

The act gives power to deal with women, not only those known to be diseased, but all prostitutes within five miles of the towns named in the schedule must submit to a periodical examination; while if any woman be desirous of returning to a virtuous course of life, she can be returned, free of expense, from the hospital where she has been detained. A woman leaving the hospital uncured, and carrying on prostitution, after being warned in writing, is then liable to imprisonment. The expenses are to be defrayed by the Admiralty Board and the Secretary of the War Department.

HOSPITAL ACCOMMODATION.

LOCAL authorities, one or more respectively, sewer or nuisance authorities in the metropolis, have power to build or provide for the inhabitants in their district hospitals or temporary places for the reception of the sick, or may contract with any existing hospital, or private person having the management of a hospital, for annual or other sums.

Here local boards are empowered to decide on the most important problem in sanitary jurisdiction. That this power is entrusted to them shows a highly flattering estimate of their competence. And, seeing that the organization of the greater part of the hospital and infirmary arrangements of the country under poor law administration will have to undergo improvement, it is not an exaggeration to say that a work of no trifling labour has to be accomplished.

The principles of hospital hygiene, and regulations for the management of hospitals, were ably reported upon by Dr. Bristowe and Mr. T. Holmes in the Sixth Annual Report of the Medical Officer of the Privy Council. Miss Nightingale has also, in her "*Notes on Hospitals*," entered upon these inquiries. Both works may be consulted with great advantage.

Besides architectural skill and experience, much general knowledge is required in deciding upon hospital accommodation. The elevation, shape, size, and nature of the building are questions of grave interest. The various forms of hospitals are known as the **H** shaped plan, the pavilion plan, the corridor plan, and others of an irregular plan, or resembling private houses. Of these latter, the village hospitals offer examples. Questions as to the arrangement of wards, their shape, size, and ventilation, cubic space allowed for each bed, size of windows, the nature of the floors and walls, water closets, bath rooms, and drainage, will have to be duly considered. Other questions will have to be taken into consideration sooner or later.

How far it will be wise for all public hospitals to be utilized for purposes of medical education, where sound clinical teaching in the diagnosis and treatment of disease may be studied, is a question yet to be determined. Ought not hospitals and public institutions of that character, supported by public or national funds, be utilized under wiser regulations for public benefit? If the whole organization of poor law medical relief were ameliorated the staff of physicians and surgeons attached to hospitals and infirmaries ought to include the most able men in the provinces ;

and they would then rank in talent and position with those in the army and navy, or be equal with those attached to prisons and lunatic asylums.

This can only be effected by a reform, in which the following elements might be introduced into the discussion :—The poor law medical officers are called upon to attend annually more than one million and a half persons in a sick or dying state; but the total number of persons in the country incapable of providing food and medicine for themselves in time of sickness is more than double that amount. The burden of relief falls partly upon the poor law, while the rest is shared by hospitals, dispensaries, sick clubs, and private benevolence. The average duration of medical attendance is from twenty-six to forty-two days; but the average period of incapacity for remunerative labour, during sickness and convalescence, is not far short of ten weeks.

In a pecuniary point of view, the ratepayers are materially interested in the management of the sick poor. There are many objections against its being a local charge. National or district hospitals, managed by a local committee and supported by a county rate, have as just and equitable a claim upon the county as prisons and lunatic asylums. What is needed is the establishment of one or more large hospitals, in suitable districts, where the best medical, surgical, and midwifery assistance can be obtained by the poor at all times, and of smaller village hospitals or *sanitaria* for convalescent, paralytic, and incurable persons. During the last year, sixty of these have been erected on the model of those at Cranley and East Grinstead. They are supported partly by funds derived from the friends of patients and from sick clubs, and partly by guardians of the poor, some of whom wisely subsidize them, paying from 3s. 6d. to 10s. weekly for patients sent by their order. These *sanitaria*, conducted by humane and intelligent persons, would also derive great pecuniary assistance were they to receive convalescent patients from town hospitals; or they might be used for the reception of patients whose home accommodation and nursing, such as it is in lodgings, are either inconvenient or unhealthy. Female co-operation would not be wanting, either in the nursing or visiting department; while every facility should be offered for inquiries and for the distribution of comforts to the inmates.

These institutions ought to be provided with flower gardens, shady walks, and resting places for the old and infirm, who would have to spend here their latter days. These places should, indeed, be made rather attractive than repulsive to the feelings of those willing to engage in works of public charity. There is no object to be gained, as some think, by handing over the poor to hard-hearted officials, or by attempting to make everything so repulsive as to drive the deserving poor to starvation rather than

submit to the social degradation of pauperism. Neither would the vicious or criminal be in the least degree attracted into these institutions, of whose existence strict discipline and formal daily routine are the essential features.

SANITARY ASSOCIATIONS.

A very popular and, to some extent, successful mode of propagating sanitary knowledge, and of urging upon the government and local authorities the fulfilment of their duty as protectors of public health, are those sanitary associations or committees that have sprung up in all parts of the country. That they should have been called into activity shows the radical weakness and want of organization in our municipal bodies, and evidences also the necessity for a more intelligent public spirit in persons who claim the privilege of acting on behalf of the social and sanitary interests of the people. These associations are to be commended, in so far as they tend to diffuse a knowledge of various physiological and hygienic principles relating to the affairs of common life. The subjects most talked about at their meetings might, perhaps, be better taught in schools and colleges; but we know of no academical means for teaching the people anything of water-supply, drainage, wholesome food, pure air, baths, infantile mortality, epidemics, and preventible diseases. Yet at great effort and expense are these societies striving, with the assistance of the press, to inculcate this kind of sanitary knowledge.

Foremost amongst them stand the Metropolitan Association of Medical Officers of Health, the Epidemiological Society, the Health Section of the Social Science Association, and the Ladies' Sanitary Association.* These, and many others in the provinces,

* The following popular publications of the Ladies' Sanitary Association (secretary, Miss E. S. Griffiths; office, 8, Pont Street, Belgrave Square, S.W.), affiliated with the National Association for the Promotion of Social Science, prepared specially for distribution among the poor, at 2d. each or 16s. per hundred, deserve special notice:—

The Worth of Fresh Air.

—————Pure Water.

—————Good Food.

The Influence of Wholesome Drink.

The Advantage of Warm Clothing.

The Sick Child's Cry.

Work and Play.

The Health of Mothers.

How to Manage a Baby.

The Power of Soap and Water.

The Mischief of Bad Air.

The Health of the Parish, and the Dwellings of the People. By Dr. R. Drutt.

How do People hasten Death?

Healthy Dwellings, and Prevailing Sanitary Defects in the Homes of the Working Classes. 4d.

the Manchester and Salford Sanitary Association for instance, are examples of a truly active and useful benevolence. For many years they have been indefatigable in endeavouring to rouse a public spirit which seems needed to induce the legislature of the country to consider these questions. Great sanitary lessons come out of all their gatherings; their discussions operate in removing much of the apathy and ignorance which exist in many quarters; and the general spread of information gives to noblemen and magistrates who administer the law in their respective localities a more perfect acquaintance with the condition of their poorer neighbours. What the late Earl of Carlisle said twenty years ago, in one of his addresses upon legislation on this subject, remains still too true at the present day:—

No one in his conscience—be he minister of state, be he member of parliament, or be he citizen of any class—ought to hold himself harmless if, in the coming time, he offer any obstruction, or suffer any obstruction to be offered, to the immediate adoption of sanitary reform.

BATHS, WASHHOUSES, PUBLIC LAUNDRIES, AND CIVIC PURIFICATION.

ABOUT twenty years ago, associations were formed in London and in the more enlightened towns of the country to invite attention to the great benefit the poorer classes would derive from public baths; and the result of that agitation was the passing of an Act, known in 1846 as Sir Henry Dunkenfield's Act, for the establishment of *public baths, washhouses, and open bathing places*. The slow progress of sanitary movements is indicated by the reluctance to institute works of such undoubted usefulness as these. St. Pancras, one of the largest metropolitan parishes, and one least unwilling to be thought behindhand in sanitary efforts, has but recently overcome old standing opposition and availed itself of this Act to establish public baths.

There are few towns, or none that we know of, where suitable places for open air bathing and swimming have yet been provided under the powers of this act. In all large manufacturing and closely populated neighbourhoods a more wholesome summer recreation cannot be imagined, and the establishment would, in all probability, be self-supporting. The first step to remedy the growing evils of our dirty and overcrowded population would be to open, in suitable localities, numerous washhouses or public laundries. Nothing is so likely to diminish the spread of fever and epidemic diseases as this, combined with a more compulsory cleansing of the houses and haunts of the lowest poor. The present large establishments of baths and washhouses are at too great a distance

from the homes of many who would willingly use them, and the concentration of so many persons in one establishment is said to be attended with some inconvenience. An extensive organization of public washhouses might, with propriety, be undertaken by the parochial authorities, as part of a more perfect system of civic purification, including periodical surface cleansing of roads and other places, the emptying of dust bins, &c. The institution of some such system would be attended with marked success in promoting health and cleanliness.

In another point of view, our parish authorities should not lose sight of the advantages which they might derive from taking into their own hands the duties belonging to the cleansing and purification of towns and houses. It would present to them a most efficient opportunity of finding employment for large numbers of unskilled labourers—both male and female—seeking daily occupation. Any one acquainted with the class of persons who apply for out-door relief would be able to testify how much would be saved to the parish by finding work for the hundreds who are willing but unable to obtain it.

The street orderly system has never been properly organized as it ought to have been, with a view to provide employment for large numbers of unskilled labourers and poor. Hundreds of tons of dirt and excrementitious matter are allowed to remain for several days spread over the streets, exhaling noxious effluvia or forming dust, to the discomfort and annoyance of the inhabitants, trades-people, and persons frequenting the great thoroughfares. This it is that mainly necessitates the constant watering of streets during summer, and entails upon housekeepers an enormous expense in domestic washing and cleaning. The immediate collection and daily removal of such matter beyond the precincts of towns, and its compulsory application to agriculture under the powers contained in the Sewage Utilization Act, 1865, would be attended with immense advantage to all classes. In most paved streets this refuse consists of nineteen-twentieths of animal excreta. The contents of dust bins has also a value hitherto neglected by ratepayers.

Public baths and washhouses have by no means accomplished the objects and benefits expected from their establishment by those who first promoted them. The very poor and destitute, whose persons and garments generally abound in filth, can rarely be prevailed upon to use these places, even when tickets are gratuitously offered to them. Fever and other pestilential maladies will never be banished from the land until some compulsory powers are ordained for an improved and systematic organization of civic purification. Without this their expulsion is an impossibility. The powers given by sects. 22 and 23 of the Sanitary Act to nuisance authorities to cleanse and disinfect for the poor, and to charge owners and occupiers of houses who are

able to pay for cleansing, is a plan which, we do not hesitate to say, will not be found to work practically. It will be too late for parishes to institute a system of disinfection and deodorization in the unclean and untidy dwellings of the poorest after fever has broken out. Far wiser will it be to take steps for the speedy removal before hand of all traces of decaying animal and vegetable refuse; so that in every room, house, or street, the free action of nature's disinfectant—pure oxygen or ozone—with sunlight, would leave very little work for chemical or artificial disinfectants.

If, however, any one desire to resort to these means as a temporary expedient, it may be useful to mention some of the great variety of gaseous, liquid, and solid substances that may be employed; premising, at the same time, that the organic matter having been deodorized, and often supposed to be disinfected, may still be dangerous, and that no disinfectant can compensate for the neglect of ablution and cleansing with plain soap and water. The various disinfecting substances in use are the following:—Nitrous acid, as a gas from nitric acid and copper filings; chlorine, as a gas evolved from common salt, or as chloride of lime sprinkled on the floor. Iodine, which gives a less unpleasant smell, has been recently used in hospitals; it will, like chlorine, act upon impurities in the atmosphere. In the form of liquids there are several soluble salts of zinc, iron, and lead, that have the property of deodorizing very readily; and the more elegant liquid preparation, permanganate of potash, Condry's Liquid, is deservedly in extensive use. It readily oxydizes organic matters in water, and is used as a test for impure water. Of solid deodorizing matters, quick lime or in cream and chalk may be mentioned, and common dry earth soil—the latter has been ingeniously applied to the deodorization of the soil in closets, and may in several instances replace the use of water—but the most powerful of all is powdered charcoal, both animal and vegetable, which has great disinfecting, absorbing, and deodorizing power over large quantities of organic effluvia.

In 1864, when it was proposed by the Sanitary Commission in India to introduce, on a large scale, a disinfecting powder, the Hospital and Barrack Commission was requested to give an opinion with regard to the efficacy of this substance and the purposes for which it was proposed to be used. Their reply contained remarks to this effect:—That if disinfectants of any sort are relied upon, to the neglect of removal of excreta by water, or other means of removing by hand impurities from bedding and wards in hospitals, evil will result. "Disinfecting agents are a palliation and excuse for neglected duty in nine cases out of ten." This was the opinion of Mr. R. Rawlinson, which was endorsed by Dr. Sutherland and by the signatures of every other member of the commission.

PUBLIC PARKS, RECREATION GROUNDS, OPEN SPACES, &c.

THE management of the public parks, recreation grounds, and open spaces, offers another means of providing suitable temporary employment for a large number of persons who are now compelled to seek out-door relief, or for others who have to be taken charge of altogether as in-door paupers.

There are various acts for the protection of public gardens and open spaces,* which may be utilized most advantageously, if put into force by willing and intelligent guardians who have the public welfare at heart. A board of ratepayers in any parish may now, according to law, appoint either the lord of the manor, the churchwardens, or the overseers, as trustees where these places have not been already taken charge of, or where no appointment of trustees has taken place, and these powers have been neglected. The Recreation Grounds Act provides that in London the Metropolitan Board of Works shall have jurisdiction, and in towns the corporation of the city or borough. At all events, the inhabitants of towns have clearly these arrangements in their own hands, and power is given to them to appoint committees of management, whereby parish vestries and municipal corporations may take upon themselves the maintenance of many of the open places now useless, and may make them a rendezvous for aged persons and invalids, and play grounds for the rising generation.

The municipal government of Paris offers many places worthy of imitation by our metropolitan and district boards of works; and the example most nobly set by those who have the charge of Gray's Inn Gardens, the Temple Gardens, and Lincoln's Inn Fields, in granting admission to the public, under certain conditions, might be followed in many other cases. How many of these fine open spaces and squares in the heart of London might be judiciously opened for the public benefit, without any disadvantage to the more privileged proprietors? Scope would be afforded for the cultivation and show of flowers, for bands of music to play at regular intervals set apart for promenades, or for rifle corps to have their drill practice. The dangers to children, aged persons, and invalids in our thronged streets, together with the daily increasing number of accidents, render more necessary every day some further provision, in addition to the parks, of places whither nurses

* The Recreation Grounds Act of 1859 and the Commons Enclosure Act. The Public Health Act, the Local Government Act, and the Towns Improvement Clauses Act have powers of this nature.

or mothers with infants, invalids, and young persons during the intervals between school hours, may resort in safety. Much may be expected in this direction when intelligent and humane people set themselves earnestly to work to see what can reasonably be done to improve the health and comforts of the more dependent classes.

Besides improving these walks and pleasure grounds, instituting public gymnasia, and the keeping them in order, urinals, water-closets, and public lavatories might be established in suitable places for the accommodation of the public in large towns, where they are now insufficiently provided or altogether wanting. In guarding and keeping clean these places many persons in humble life would readily obtain a living, and be kept from applying to the ratepayers for support.

The rates might be relieved, even, by offering to many of the aged inmates of workhouses light work, suitable to their strength, under the direction of an efficient municipal officer.

It remains to be seen what will be the result of the act just passed for making a provision for the protection and management of the commons near the metropolis.* These easily accessible places for healthy recreation should now be in no danger of destruction. The public will have an uninterrupted right to roam over the commons and heaths of Epping, Hainault, Blackheath, Hampstead, and Wimbledon. These great privileges to the population of London cannot be over-estimated. For such a city a surrounding belt of free open spaces,—where the meanest person can feel that he may commune unrestrained with nature, and that the common, the heath, and the forest over which he strays are as much his own to enjoy as is the closed park to the knight or noble,—ought to be considered as great a boon as that that parks and open spaces should be maintained within our cities.

OFFENSIVE OR NOXIOUS TRADES, SLAUGHTER HOUSES, AND SMOKE NUISANCE.

THE Nuisance Removal Act, sect. 38, the Local Government Act, sect. 108, various sections in the Public Health Act, and in the Towns Improvement Clauses Act, and sect. 19 in the Sanitary Act of 1866, direct attention to nuisances arising from offensive, noxious, or dangerous trades, and provide for the regulation of slaughter houses, and the consumption of smoke. Besides these acts, there are special statutes in force

* 29 & 30 Vict. c. 122, August 10th, 1866.

for the protection of persons employed in various trades. The Factory Acts, amended as they have been on several occasions, have relation to the health of women and children, by restricting the time of labour to twelve hours daily. No child under eight years of age is allowed to be employed in any factory more than six and a half or seven hours in one day, and the strength and healthy appearance of any child under thirteen must be certified in the proper way by a medical man. They are not allowed to clean machinery in motion, or to work between the fixed and dangerous parts, which latter must be securely fenced. Recent amendments have provisions as to the painting, lime-washing, and cleansing of the walls and ceilings, for securing good ventilation, and rendering harmless noxious gases, dust, &c. Owners or occupiers are required, under a penalty, to construct a sufficient number of water closets for the separate use of each sex.

For the protection of miners it has been enacted that no female shall be employed in any coal, iron, or other mine; nor any boy under twelve, unless a certificate be obtained that he is able to read and write and attends school a certain number of hours during the week. Inspectors are authorized to make inquiries into the ventilation, the safety of the ascent and descent by any shaft, the provision of safety lamps, and of proper gauges for the boilers; special rules, calculated to prevent accidents, must be hung up about the mine, and notices of any threatened danger are to be given. Colliers' wages are to be paid in money, at an office not contiguous to any public house, under a penalty not exceeding ten pounds.

For the protection of journeymen bakers, for the manufacture of bread, and for the prevention of adulteration in food and drink, special acts are in force (*vide* p. 69); and it is the duty of a local authority, by means of their officer of health or of the inspector of nuisances, to enter any bakehouse and see that it is kept in a cleanly state, provided with means of ventilation, and free from the effluvium from any drain, privy, or other nuisance. And in order to detect adulterations in meal, flour, dough, or bread, a local authority, under the Nuisance Removal Act (18 & 19 Vict. c. 121, s. 11), may enter the premises at any hour and inspect any fruit, vegetable, corn, flour, &c. By the Food Analysis Act* the local authority has power to appoint as public analysts persons possessed of competent medical, microscopical, and chemical knowledge to examine articles of food and drink within their district; and persons offending, upon summary conviction, forfeit 5*l.* with costs, and the offender's name may be published in the newspapers.

The danger to health from meat exposed for sale unfit for

* 23 & 24 Vict. c. 84.

human food has, in this country, but very recently attracted attention, and the laws with regard to it (11 & 12 Vict. c. 107, and 26 & 27 Vict. c. 95,) are in a very unsatisfactory state. Dr. Letheby, in reading a paper on this subject before the Metropolitan Association of Medical Officers of Health, asserted that in the city markets for the sale of dead meat it was hardly possible, owing to the confusion that prevailed during the hours of business, to prevent the sale of unsound meat; he added that, although during the last six years nearly 600 tons of bad meat had been condemned, much more had escaped observation. Indeed, there was a systematic trade in diseased animals, owing to the readiness with which diseased meat was disposed of in the city; while large quantities of diseased and rotten sheep, dressed for human food, were being imported from the continent, and this, it appears, the custom house authorities had no power to prevent.

With respect to slaughter houses and knackers' yards, the Towns Improvement Clauses Act, the Public Health Act, and the Local Government Acts, have very distinct clauses providing for their license and management, and prescribing penalties for neglect of bye-laws.

Dr. Mapother asserts that, notwithstanding the water-supply and sewerage, the earth in the vicinity of the old established and ill constructed slaughter houses becomes so imbued with the refuse and blood of the animals slaughtered, that nothing short of the erection of new abattoirs and meat markets could remedy the nuisance.

The local authorities are also endowed with power to permit or to render lawful, under certain conditions, trades which would otherwise be deemed nuisances. Examples of these are bone, soap, or tripe boiling, tallow melting, size factories, fellmongers' business, rag and bone stores, the slaughtering of cattle and horses, the preparation of artificial manures, and preparations from the entrails of animals. Officers of health have power to inspect and report upon these noxious trades when carried on in populous neighbourhoods.

Within one year of the passing of the Sanitary Act (August, 1866), smoke from any fire-place or furnace belonging to any steam engine, mill, factory, dyehouse, brewery, or bakehouse, must be consumed, or the effluvia arising from any combustible material must be destroyed. This edict is, however, greatly weakened in force and usefulness by the insertion of a sentence somewhat as follows:—That no nuisance is created when any furnace is constructed to consume, *as far as practicable*, all smoke arising therefrom, and when the person in charge carefully attends to it. The smoke nuisance will therefore resolve itself into a matter of arbitration; and until public opinion manifests itself more strongly, the stringent laws with respect to smoke

nuisances will not be put into operation. For the last twenty years these acts have been openly violated or disregarded; while it too frequently happens that the offenders themselves are called upon to fix the penalty. Instead of the heavy penalties now proposed, smaller and accumulating fines, enforced by a government inspector would be a desirable improvement.

Black smoke, the product of imperfect coal burning, consists of small particles of carbon floating in the atmosphere. These readily attract sulphurous vapour and a tarry liquid given off at the same time in combustion. This matter, settling upon the surface of leaves as well as upon the bark of plants, prevents the due action of the atmosphere upon them. The damages from smoke to clothing and buildings are something enormous, a far more expensive nuisance than is generally supposed; and a very recent authority, Dr. Angus Smith,* of Manchester, believes that the healthy influence of the sun's rays, being intercepted by a smoky atmosphere, is one cause of that depression of spirits habitual in many inhabitants of large towns. Dr. Morgan† attributes to the dull smoky atmosphere in towns an influence in the degeneration of the race.

The following are some of the instructions prepared‡ by the smoke nuisance committee of the corporation of Dublin:—

Instructions for the direction of the owners, managers, and stokers of all establishments where fuel is burnt in places other than ordinary fire grates:—

1. The complete combustion of fuel depends on the admission of just enough air to the furnace. Too small a quantity allows some of the fuel to pass off in smoke, or in an imperfectly burned condition, producing *great waste*; but if the amount of air admitted be too great, the heat will be reduced to an ineffective degree. When black smoke is seen to issue from the chimney, let the door of the furnace be opened. The draught entrance must be kept free of fuel or ashes at all times.
2. The furnace should never be choked up with fuel.
3. Before adding fresh fuel, most of the red coal at the front of the furnace should be raked to the back, and the fresh fuel placed upon the remnant in the front, so that all the matter issuing from the fresh fuel shall be burned by the bright fire at the back.
4. Large coal should be broken into pieces the size of the hand, when shut, before being added to the furnace.
5. The quantity of red coal on the floor or bars of the furnace should be equally distributed, and never less than three inches deep.
6. All furnaces and boilers to be constructed under the superintendence of a competent engineer, and with a view to prevent the exit of unconsumed smoke.

With regard to accidents by fire, gunpowder, petroleum, nitro-glycerine, and other explosive substances, there are several scat-

* Paper in Transactions of the Social Science Association, 1865-66.

† On the Dangers from a Deterioration of the Race in Large Towns. Social Science Transactions, p. 427.

‡ Report on the Health of Dublin for the year 1865.

tered acts of parliament, independent of clauses in the Local Government Act.*

The manufacture of fireworks, percussion caps, and fulminating mercury, cannot be legally carried on without a license, or within a hundred yards of any dwelling place. Certain explosive materials are to be kept in quantities specified in the license. No dealers in gunpowder may keep at one time more than 200 pounds, nor any person, not being a dealer, more than fifty pounds, in any house or adjoining building, except loading or unloading, within any certain distance of London or Westminster, or within any borough or market town, or within any certain distance of any palace or powder magazine or parish church. For mining, quarrying, or colliery purposes, for the conveyance of powder by land, in any barge or vessel by water, and on railways, certain regulations have been made in the Gunpowder Acts, and penalties are recoverable in a summary manner for neglecting to comply with their provisions

It is now illegal for chimney sweepers to employ any one under the age of sixteen years in ascending or descending a chimney, or in extinguishing a fire therein; and in the act for the protection of chimney sweepers (27 & 28 Vict. c. 37, s. 6,) are certain regulations for the construction of chimneys and flues, in order to facilitate their cleansing and for the prevention of danger from fire.

In addition to clauses in this last-named act, with respect to fires, the Public Health and Local Government Acts, and the Metropolitan Building Act, give powers to provide fire-engines, buckets, escapes, to employ firemen, and execute waterworks in connection therewith. In the metropolis the Metropolitan Board of Works have recently taken upon themselves the duty of extinguishing fires and protecting life and property in danger therefrom. A large staff and material have been handed over to the Board, and an organized system is now being carried out most efficiently. At present the income applied to the fire brigade amounts to about 52,000*l.* a year; and it is important to mention a remark in the last report with respect to the want of a constant supply of water. Frequently, when the brigade men have arrived at the scene of a fire, they find no water ready, and have to wait until a turncock arrives to open the plugs. The result is a greater destruction of property than would be the case if the water supply were constant and always under the control of the brigade. The cost of the brigade might be considerably reduced if there could be obtained a constant high-pressure water supply, such as is found to be of the greatest advantage in many of the principal cities and towns

* 10 & 11 Vict. cc. 34, 89; 23 & 24 Vict. c. 139; 25 & 26 Vict. c. 66.

of the United Kingdom. In the places alluded to—as in Glasgow, for instance—engines are scarcely ever used, the fires being extinguished by the application of water from a stand-pipe only.

Gas works in the vicinity of large towns must be considered under the head of nuisances. Many persons contend for their entire removal to places at a distance from a town population; and although there are strong reasons for this, different opinions are to be encountered on the point. The chemical processes that should be used for the purification of gas admit of dispute. The lime process is an unmitigated nuisance, and the refuse even is so disgusting that it has to be removed in air-tight barges. Dr. Mapother, who visited the gas works in London and other large towns, asserts that the lime process must be abandoned, and superseded by the iron and saw dust method of purification.*

In dealing with the dangerous properties of gases emitted from chemical and other manufactures the Alkali Act of 1863 provides that every work shall be carried on in such a manner as to secure not less than 95 per cent. of muriatic acid.

The Secretary of State appears to be the central authority for appeal and for enforcing the due observance of most of the statutes relating to dangerous and noxious trades, and he has the power to appoint inspectors and other persons to see them carried out and to report thereupon.

In this department of sanitary legislation many other subjects might be mentioned, and useful suggestions made, had we not proposed to ourselves merely to give the heads of certain divisions of what may be termed “medical police.” For instance, amendments might be suggested to improve the imperfect state of the law relating to the sale of poisons. The acts relating to poisons (23 Vict. c. 8, 24 & 25 Vict. c. 100), and that for restricting the sale of arsenic and its preparations (14 Vict. c. 13), should also regulate and include many other noxious drugs. If purchasers of cyanide of potassium, prussic acid, strychnine, laudanum, &c. were asked to state the purpose for which those drugs are required, it would remove the somewhat dangerous facilities and risk of their being used as a means of suicide. Further, the acts for the better protection of the public against quackery, and to restrain unqualified persons from giving medical advice, admit of much improvement.

In France, trades and occupations injurious, inconvenient, or unhealthy, are classified into three distinct divisions. One comprehends those which ought to be carried on at a distance from habitations. Another contains those which it is not absolutely necessary to remove to a distance from human habitation, but such as are to be carried on so as not to injure or inconvenience

* Report on the Health of Dublin, 1865, p. 24.

those who live near them. Others there are under the inspection of the police, without any restriction as to locality. Permission has, in all cases, to be granted by the Council of Public Health for the department in which the trade is carried on, and occasionally a commission will be named to inquire and report upon causes of unhealthiness and to suggest the means for remedying them. Interested parties have a power of appeal, and, after a month's delay, the civil tribunals pass a judgment for or against a continuance of the operations.

SUGGESTIONS FOR A CODE OF SANITARY LAW.

IN glancing over the catalogue of laws relating to sanitary works and purposes (*vide* p. 69), it is at once obvious that, numerous as they are, they have been framed with great care and are well worthy of being retained and incorporated into a single act, to form a comprehensive system of sanitary economy.

A striking feature in these laws is the voluntary nature of their action, which, while it fosters a spirit of independence, highly flattering to the English character, allows gross evils to exist until the public mind is startled by revolting revelations, and then steps are taken to put them into execution. These laws, in the majority of instances, are fully adequate to improve the condition of the lower classes, to the extent of diminishing half their diseases, distresses, and miseries, if strenuously put into force; while, at the same time, the rates would be lessened in proportion as the moral and physical evils of an unsanitary situation are remedied.

What appears, therefore, now needed, in the opinion of those who have studied the subject, is, that the whole of the laws relating to public should be carefully revised, amended, and consolidated, by adaptation to the wants of the present time. The Public Health Act of 1848 and the Local Government Act of 1858, with the Metropolis Local Management Act of 1855, might be taken as a basis for a new act, with which the various other acts referred to (p. 69) might, without difficulty, be embodied, with such necessary additions and amendments as to form a complete code of laws applicable to all sanitary works. The standing committee of the Health Department of the Social Science Association, assembled at Manchester in October last, recommended such a consolidation, and also a better administra-

tion of the sanitary laws ; and in a discussion upon the subject of public health it was strongly argued that many permissive clauses in the present acts should be made compulsory, while other acts should be required to extend over larger areas of population. The following resolution has since been proposed and seconded :—

That the council is of opinion that a Royal Commission ought to be issued to frame a measure for the consolidation and better administration of the laws relating to public health ; and that Dr. Stewart, Mr. Jenkins, Mr. Clode, Dr. Hardwicke, and Mr. Rendle, be requested to prepare and to report to the council a memorial upon this matter, to be submitted, by a deputation hereafter to be appointed, to the Lord President of the Privy Council.

Centralization of powers.—Sanitary regulations are now provided for by special statutes in the army and navy, merchant service, in prisons, lunatic asylums, national educational establishments, mines, factories, and in certain noxious trades. For all of these inspectors are appointed to report thereon to superior officers of state—the Secretary of State, the Board of Trade, &c. But the sanitary inspection of hospitals and infirmaries, dwellings of the poor, private educational establishments, charitable and other institutions under local management, is not yet confided to a central authority.

Hence it happens that a deplorable state of things is evidenced by a high rate of mortality, which, in general, will be found associated with a deficiency of the water-supply, pollution of rivers, violations of decency and order in the dwellings of the poor, and other disgraces to our civilization ; defects which could not have remained so long concealed—nor allowed to pass unheeded—if due publicity, from the employment of competent public officers, had been provided for, and their suggestive hints to the local bodies had been duly regarded.

Some essential modifications are also desirable in certain central offices of the state in order to ensure a more perfect and efficient execution of sanitary laws.

The office of the Registrar General, besides including, as it now does, the taking the census of the people (which might be taken every five years instead of every ten), ought to record other statistical data, in addition to the births, deaths, and marriages. For example,—diseases, accidents, and injuries, the advent, propagation, and decline of zymotic maladies, certain statistics from hospitals, life assurance offices, sick clubs, and from private medical practice, might be obtained by issuing suitable forms, and might be used with advantage for the public welfare. A department of the Registrar General's office, rather than of the Board of Trade, would be more competent to train a staff of officials for collecting and tabulating statistical details relating to the agricultural productions of the country, the amount and value of live stock, cereal and vegetable crops, &c.

Dr. Farr alluded, in his admirable address at Manchester, amongst other investigations relating to public health, to means of perfecting the registration of disease, and to the grave defects which may be noticed in the present system of national registration.*

It has been proposed, as an amendment of the Registration Act, that a registration medical officer shall take cognizance of every case of death, and that still-born children should be registered, by which infantine mortality and crimes in connection with infants would be much diminished. A system of family registration might probably, at some future time, be instituted, in order to show, in a more striking and satisfactory manner, the strength and health of the population, as indicated by the personal, physical, and social developement of each member. Examinations for the army and navy, and of prisoners, certainly give some slight clue to the condition of these classes of the population; but the importance to the State of records for ascertaining the health and strength, as well as diseases and mortality, of people in well-known occupations and places, cannot be over estimated; and would materially aid in studying and improving the sanitary welfare of the people. Suggestions upon this subject will be found in M. Quetlet's valuable work "*Sur l'Homme*," in *the work* (Dr. H. Dobell's) report of the Sanitary Condition of Massachusetts, and in the Supplement to the Twenty-sixth Report of the Registrar General.

The Ordnance Department might be so conducted as to provide a thorough survey of every town and district in the kingdom, on a scale of not less than five inches to the mile, giving the plans of houses in towns, the boundaries of parishes, particulars of rivers, lakes, and streams, geological strata of hills and valleys, and the analysis of waters and soils. Meteorological observations might also be collected, periodically, by the Ordnance staff rather than under the Board of Trade from various localities, without which, frequently, no satisfactory decisions can be arrived at. Whilst, at the present time, the government has under consideration a plan for the systematic prosecution of meteorology, it will not be out of place to press the great importance of this science to a maritime nation; where so much life and property may be protected by an intimation of approaching winds and storms by means of the telegraphic signals which began to work such good results under the late Admiral Fitzroy. No money could be better spent by the government than in establishing stations and furnishing them with instruments, and with a body of men capable of making observations, under the direction of a scientific board, who should report results likely to prove practically useful.

* Twenty-seventh Annual Report of the Registrar General (1866), pp. 184, 187.

Besides these topographical and meteorological inquiries, a further extension of the duties of this office might be so organized that the local surveyor should be in possession of plans and particulars relating to the cubic space for the ventilation, the water-supply, and drainage of every house used as a dwelling, in whatever part of the kingdom it may be situated.

Having mentioned the duties which appear to fall within the scope of the National Registration Office, the Ordnance Survey, the departments under the Secretary of State, and the Board of Trade, it remains to show how some other public offices—the Poor Law Board, Local Government Office, and the Privy Council—might be charged to supervise and report upon the proceedings of district and local authorities, and materially to assist them by correspondence, by allowing access to valuable records at their command, and by giving, in an annual report, instructions and recommendations for economical and efficient action. Much of the formidable opposition to the power and control of a central authority would be at once removed, if the heads of these departments of the state undertook certain well-defined duties, and declared their object to be simply that of assisting, rather than superseding, the necessity for local administration.

The parliamentary blue books, which appear now to be almost exclusively printed for and distributed amongst members of parliament, should be prepared and issued for the express purpose of affording aid to officials engaged in local duties in remote country towns. Without the intervention of the press, and its influence in diffusing knowledge in modern times, the great mass of valuable materials stored up in these books would often remain a dead letter to those whom it most concerns. The poor law, which now includes so great a variety of laws, will probably, at some future day, have to be reconstructed; and it would be well to confine the attention of those entrusted with its revision to the following objects:—1. A better provision and relief for the casual and able-bodied poor; 2. An immediate relief and provision, medical and otherwise, for the sick, infirm, and aged; the disposal of lunatic and idiotic poor in national hospitals, lunatic and idiot asylums, and other institutions, under the inspection of the Poor Law Board or the Privy Council, as may be hereafter determined; 3. The treatment of neglected and destitute children and orphans in the national educational establishments, whose duties, under the direction of state authority—the Council of National Education—should be better defined.

The Local Government Board might have the supervision of all matters relating to drainage, sewerage, water-supply, gas works, public roads, parks, and gardens, baths and washhouses, and cemeteries; and might assist the local bodies by collecting information and plans which the experience of government commissioners has

at command in the public works which have been executed in several parts of the country. The French government gives an example in the following work, issued in 1862:—*Notice sur les Modèles, Chartes, et Dessins, relatif aux Travaux Public, réunis par les soins du Ministre de l'Agriculture, du Commerce, et des Travaux Public.*

District Boards of Works.—A large extension in the area and jurisdiction is much needed for the administration of works connected with drainage, of rivers, swamps, and low lands; the construction and maintenance of bridges, canals, and public roads, for which there is, at present, no adequate provision, and which often necessitate an expensive and special act of parliament. Registration districts, poor law unions, or several of these in combination, might often form a convenient surface area of country for such district boards of works. In the legal constitution of district boards, the members or delegates should represent and protect all local interests, and might be chosen from magistrates and other substantial and intelligent persons, assisted by a suitable staff of officers, including surveyors, engineers, solicitors, and sanitary officers. In the constitution of this body it would be essential to define by law the amount of taxation capable of being levied within a given period, and many other details into which it could not be possible here to enter.

The Metropolitan Board of Works,—instituted by the act passed in 1855 for the better local management of the Metropolis, and since amended by other acts,—presents a fair example of the plan for constituting boards of works whose operations should extend over a large area in different parts of the country. The functions in the first instance entrusted to the Metropolitan Board of Works were almost exclusively confined to the great scheme for the main drainage of London and its suburbs, and the execution of the Thames embankment works; but they have since been extended to the numbering, naming, and improving of streets and thoroughfares, the administration of the fire brigade, a provision for the metropolitan houseless poor, while the present monopolies relating to the water-supply and the manufacture and supply of gas will probably have to be transferred to the jurisdiction of the same board. Owing to the jealousies of vestries and the many local bodies, who fear a curtailment of their powers, they still possess authority to execute minor details of drainage, paving, lighting, watering, and cleansing the highways and streets. Hence the metropolis of the world is, from want of united action, worse governed than many other cities; instead of becoming, as it ought to be, a model of efficiency and economy in all that relates to municipal government.

Local Sanitary Administration.—The functions which naturally devolve upon local bodies, after leaving much to the jurisdiction

of district boards of works, extending over large tracts of country, would still be considerable, and enough to occupy the attention of those willing to engage in the duties of home or local affairs. Where municipal corporations at present exist, they are the most suitable executive authorities; but in towns where no municipal corporation has yet been formed, the immediate adoption of the Local Government or Municipal Corporations Act should be made compulsory. In smaller towns or villages, where no provision is made by these laws, the overseers, guardians of the poor, or a sworn constable, with a committee of three or more inhabitants, might be delegated to act on behalf of the ratepayers. The various duties of carrying into execution the sanitary laws, which, as may be easily shown, are essentially the poor laws, would be more than sufficient to occupy time and services rendered gratuitously. Amongst other things, it will suffice to mention only the following well-known matters of business in which town councillors, guardians, and vestrymen are called upon to act on committees and boards:—The management of the poor, schools, hospitals, water, gas, public baths, highways, markets and fairs, &c. A special poor law board, *per se*, would almost be unnecessary if the guardians of the poor could be selected, and work in the form of a sub-committee, from the general body of a town council. After providing proper hospital accommodation for the sick and infirm, for the disposal of lunatics and idiots, the management, education, and rearing of pauper and orphan children, the treatment of the poor is resolved into a comparatively simple matter, mainly this:—The temporary reception and nightly accommodation, in refuges and public dormitories, of casuals, vagrants, and the absolutely destitute; while almost all that would be needed for the relief of the deserving and able-bodied would be effected by a staff of male and female visitors in every district to distribute alms, and report the result of their inquiries, on a plan which is found to work well in the “Assistance Publique” of Paris.

Specially qualified Officers for the Administration of Sanitary Laws.—When we consider the various and difficult duties in connection with sanitary legislation, and the large number of persons likely to be occupied in the working out of these laws, it will be seen that no existing arrangements provide for a class of special and highly qualified persons. Nor is the public protected, as it ought to be, from the danger of trusting to the numerous unskilled and incompetent people who profess to engage in employments where the life and health of the community are at stake. For this purpose it might be proposed that the government should appoint an examining board, under the Privy Council or Civil Service Commissioners, or should delegate to the Universities and medical schools a power to confer a degree or

certificate of proficiency indicating the fitness of applicants seeking for official employment in the sanitary department of the State.

Mr. Rumsey, in his pamphlet,* says:—

There is a demand growing year by year, not simply for officers of health, medical coroners, medico-legal experts, public analysts, statistical inquirers, medical and other inspectors, visitors and certifiers, under various protective and preventive enactments, but rather for a trained body of scientific men, fully competent to act in some or all of these capacities—men possessing higher, more special and better defined qualifications than have been heretofore demanded of persons holding such offices or executing such duties.

Besides offices strictly scientific and professional, including surveyors, civil engineers, medical officers of health, and analytical chemists, the law should also require from those who practice pharmacy, or are engaged in the trade of chemist druggist, or other trades where dangerous articles are used, that they should have a license or certificate showing that they possess competent knowledge of the properties of materials likely to endanger public health. Dentists, veterinary surgeons, midwives, nurses, and other persons, both male and female, in charge of illegitimate, orphan, and nursed children and lunatics, should be furnished with certificates of having received regular training and instruction. Persons holding many of the higher appointments should be elected by the local authorities, subject to the conditions and regulations issued by a superior officer of the state—the Secretary of State or by the Privy Council—to whom they should be responsible, and to whom they should consider themselves as devoting their services. Their position should be made independent, and their opinions free from any suspicion of being biassed by the duties of private practice or local interest. On this point Dr. Anstie† remarks:—

The medical advisers of the state cannot be taken haphazard from the mass of practitioners who are devoting themselves to the business of curing individual patients. I believe that absorption in ordinary practice is a fatal bar to the acquisition of that kind of knowledge and that skill in communicating it which is indispensable. And I would urge, with especial force, the propriety of placing the man of science, from whom the state requires information, in a position of independence.

* Degrees or Certificates of Qualification in State Medicine at the Universities of the United Kingdom. By H. W. Rumsey, F.R.C.S., &c.

† Macmillan's Magazine, February, 1865.

APPENDIX.

LETTER FROM THE POOR LAW BOARD TO BOARDS
OF GUARDIANS RESPECTING THE REMOVAL OF
NUISANCES AND PREVENTION OF DISEASES.

POOR LAW BOARD, WHITEHALL, S.W.
10th October, 1860.

SIR,—I am directed by the Poor Law Board to bring under the notice of the guardians the provisions of the Act of the last session of parliament for amending the Acts for the Removal of Nuisances and the Prevention of Diseases. The Act is the 23 & 24 Vict. c. 77.

By the statutes 18 & 19 Vict. cc. 116 and 121, the former passed for the prevention of diseases and the latter for the removal of nuisances, the powers and obligations thereby created were conferred upon certain local authorities who were either designated or created by those Acts. The boards of guardians of unions and parishes were not among them. The Act of the last session, however, having made an alteration in this respect, and created the guardians local authorities to execute those Acts in certain cases, it is necessary that their attention should be at once directed to this subject.

The Act has repealed the previous provisions which constituted the local authorities, and which prescribed the funds to be charged with their expenses, and has constituted those authorities afresh. Thus local boards of health, town councils, trustees or commissioners under Improvement Acts, are to be the local authorities within their respective districts. But in any place where no such authority exists, the board of guardians of the poor for such place, or of the union comprising it, shall be such local authority; and where there is no such board of guardians the overseers of the poor shall act as such.

Section 3 preserves, however, those local authorities consisting of the highway boards and the nuisances removal committees, chosen in pursuance of the Nuisance Removal Act of 1855, which at the time of the passing of the new Act (which bears date the 6th August last) employed, or had joined in employing, a sanitary inspector, so long as they continue to employ such inspector, and as regards the nuisances removal committee, so long as it shall be annually chosen in the manner required by the Act of 1855.

It is therefore incumbent upon the board of guardians to ascertain, as speedily as practicable, whether there be any such local authority as that adverted to acting for their parish or union, or any part of it. If there be any local authority as above explained acting for the whole of their district, their obligation and authority under the statutes for the removal of nuisances will not at present arise; but if there be no such authority, or if it extend to a part only of their own district, they must act within the whole of the residue of their district, as the case may be, in pursuance of those statutes.

The board cannot in this communication set out in detail the duties which will now devolve upon the guardians, nor the powers which have been conferred upon them as such local authorities, by the application of the former statutes to them; but the guardians will no doubt refer to the various provisions contained in the statutes in question.

Section 4 of the new statute provides for the charges and expenses to be incurred by the local authorities in the removal of nuisances; and as regards boards of guardians provides for five separate contingencies.

1. Where the board of guardians is the local authority for a whole union.
2. Where it is such for two or more parishes only, and not for all.
3. Where it is such for one parish only in the union.
4. Where it is such for part only of a parish, together with the whole or part only of another parish.
5. Where the board of guardians act for a parish, and not for a union.

The statute requires that the charges in all these cases shall be defrayed out of the poor rate of the place or places for which those charges shall have been incurred. As regards the fourth case, the board of guardians are to apportion the expenses between the part of the parish and the other parish or place; and it is provided in the case where a part of a parish is to be charged, that the expense incurred by the board of guardians shall be defrayed by an addition to the poor rate, and shall be raised and paid in like manner as money expended for the relief of the poor.

By section 5 power is given to the board of guardians for a union to appoint a committee or committees of its own body to act in one or more of the parishes for which it is the local authority. This committee shall have full power of executing the Act within its district, unless its power be expressly limited by the terms of its appointment.

The expenses of such committee are to be defrayed out of the poor rates of the places for which it is appointed, and in the case of any such appointment the expenses incurred for the residue

of the union are required to be defrayed as the expenses of a committee.

When a committee is appointed for the whole district of the local authority, the charges are to be contributed and paid as if such committee had not been appointed, that is, as it appears to the board, by the parish or parishes on whose account the expenses shall have been incurred, and in the proportion in which the same shall have been incurred in or for the several parishes or places.

By section 9 the board of guardians are empowered to appoint or employ inspectors of nuisances, and to make such payments as they see fit for the remuneration and expenses of such inspectors. Upon this clause the board will observe that the board of guardians must determine how to apportion the salary of the inspector of nuisances, having regard to the previous rules prescribed by the legislature. It will be necessary also that the guardians should be careful to ascertain that the person appointed to act shall be legally competent to undertake the office. If, therefore, it be deemed advisable to appoint a relieving officer to be an inspector of nuisances, it will be necessary that an application should be made to this board for their consent, in accordance with art. 166 of the general consolidated order.

The new statute then proceeds to enact that the board of guardians shall be the local authority for executing the Diseases Prevention Act of 1855 within their district, and provides that their expenses shall be defrayed out of the common fund of the union, or out of the poor rate of the parish where the same is not in any union.

But the board of guardians may appoint committees for the purposes of this Act in like manner, and with the like authority, and subject to the same provisions as to their expenses, as is above provided in regard to the committees to be appointed for the removal of nuisances.

The Privy Council may, however, if they see fit, authorise any other local authority, appointed for the removal of nuisances, to be the authority for executing the Diseases Prevention Act in the place of the board of guardians.

It is necessary now to refer to two enactments calculated to be of much use to many boards of guardians. The first is contained in section 12, which enables them, where they are the authorities for executing the Diseases Prevention Act, to provide and maintain suitable carriages for the conveyance of sick and diseased persons residing within their locality to any hospital or other place of destination. The expense thereof is to be deemed an expense incurred in executing the said Act, and consequently will be chargeable upon the common fund in unions. The board think that the legislature intended that this provision should not be limited to the period when the board of guardians are called

upon to exercise their duties for the prevention of diseases under an order in council, but that it should be of general application.

The other provision is contained in section 14, and enables the guardians of any union or parish not within a union to employ one of their medical officers to inquire and report upon the sanitary state of their union or parish, or any part thereof, and pay a reasonable compensation for the same out of their common fund.

Hitherto the board of guardians have not been able to obtain any sanitary report, except as regarded the poor in receipt of relief, unless through the voluntary and gratuitous communications of their medical officer. But henceforth they will be empowered to employ and remunerate him for the information which he can obtain and render them in peculiar emergencies when this information may be of great value, either in dispelling unfounded alarms, or in stimulating to exertion for the repression of local epidemic diseases.

In conclusion, the board desire to remark that, except so far as this last clause extends, the statute has no operation in regard to the boards of guardians in the *Metropolis*, inasmuch as it is expressly provided that the vestries and district boards appointed therein under the 18 & 19 Vict. c. 120, shall continue to be the local authorities for the removal of nuisances and for the execution of "The Diseases Prevention Act, 1855."

The statute contains some few other clauses, but they have no particular reference to the board of guardians.

I am, your obedient servant,

To the Clerk to the
Board of Guardians.

W. G. LUMLEY,
Assistant Secretary.

MEMORANDUM ISSUED BY THE MEDICAL DEPARTMENT OF THE PRIVY COUNCIL.

GENERAL MEMORANDUM ON PROCEEDINGS WHICH ARE ADVISABLE IN PLACES ATTACKED OR THREATENED BY EPIDEMIC DISEASE.

1. WHEREVER there is prevalence or threatening of cholera, diphtheria, typhus, or any other epidemic disease, it is of more than common importance that the powers conferred by the Nuisances Removal Acts, and by various other laws for the protection of the public health, be well exercised by those in whom they are vested.

2. If the danger be considerable, it will be expedient that local authorities, in taking measures against it, avail themselves of the best medical advice which their district or its neighbourhood can supply.

3. Proper precautions are equally proper for all classes of society. But it is chiefly with regard to the poorer population,—therefore chiefly in the courts and alleys of towns, and at the labourers' cottages of country districts, that local authorities are called upon to exercise vigilance, and to proffer information and advice. Common lodging-houses, and houses which are sublet in several small holdings, always require particular attention.

4. Wherever there is accumulation, stink, or soakage of house-refuse, or of other decaying animal or vegetable matter, the nuisance should as promptly as possible be abated, and precaution should be taken not to let it recur. Especially all complaints which refer to sewers and drains, or to foul ditches, and ponding of drainage, or to neglect of scavenging, should receive immediate attention. The trapping of house-drains and sinks, and the state of cesspools and middens should be carefully seen to. In slaughter-houses, and other places where beasts are kept, strict cleanliness should be enforced.

5. In order to guard against the harm which sometimes arises from disturbing heaps of offensive matter, it is often necessary to combine the use of chemical disinfectants with such means as are taken for the removal of filth; and in cases where removal is for the time impossible or inexpedient, the filth should always be disinfected. Disinfection is likewise desirable for unpaved earth close to dwellings, if it be sodden with slops or filth. Generally, where cholera or typhoid fever is in a house, the privy requires to be disinfected.—[For an account of processes of disinfection, see below.]

6. Sources of water-supply should be well examined. Those which are in any way tainted by animal or vegetable refuse,—above all, those into which there is any leakage or filtration from sewers, drains, cesspools, or foul ditches, ought no longer to be drunk from. Especially where the disease is cholera, diarrhoea, or typhoid fever, it is essential that no foul water be drunk.

7. The washing and lime-whiting of uncleanly premises, especially of such as are densely occupied, should be pressed with all practicable despatch.

8. Overcrowding should be prevented. Especially where disease has begun, the sick room should, as far as possible, be free from persons who are not of use or comfort to the patient.

9. Ample ventilation should be enforced. It should be seen that window-frames are made to open, and that windows are sufficiently opened. Especially where any kind of infective fever has begun, it is essential, both for patients and for persons who are about them, that the sick room and the sick house be constantly well traversed by streams of fresh air.

10. The cleanliest domestic habits should be enjoined. Refuse matters which have to be cast away should never be let linger within doors; and things which have to be disinfected or cleansed, should always be disinfected or cleansed without delay.

11. Special precautions of cleanliness and disinfection are necessary with regard to infective matters discharged from the bodies of the sick. Among discharges which it is proper to treat as infective, are those which come, in cases of small-pox, from the affected skin; in cases of cholera and typhoid fever, from the intestinal canal; in cases of diphtheria, from the nose and throat; likewise, in cases of any eruptive fever, the general exhalations of the sick. The caution which is necessary with regard to such matters must of course extend to whatever is imbued with them, so that bedding, clothing, towels, and other articles, which have been in use by the sick, do not become sources of mischief, either in the house to which they belong, or in houses to which they are conveyed. Moreover, in typhoid fever or cholera, the evacuations should be regarded as capable of communicating an infectious quality to any night-soil with which they are mingled in privies, drains, or cesspools; and this danger is best guarded against by disinfecting them before they are thrown away. Above all, they must never be cast where they can run or soak into sources of drinking water.

12. All reasonable care should be taken not to spread infective disease by the unnecessary association of sick with healthy persons. This care is requisite, not only with regard to the sick house, but likewise with regard to day-schools and other establishments wherein members of many different households are accustomed to meet.

13. Where dangerous conditions of residence cannot be promptly remedied, it will be best that the inmates, while unattacked by disease, remove to some safer lodging. If disease begins in houses where the sick person cannot be rightly circumstanced and tended, medical advice should be taken as to the propriety of removing him to an infirmary or hospital. In extreme cases, special infirmaries may become necessary for the sick, or special houses of refuge for the endangered.

14. Privation, as predisposing to disease, may require special measures of relief.

15. In certain cases, special medical arrangements are necessary. For instance,—as cholera in this country almost always begins somewhat gradually in the comparatively tractable form of what is called “premonitory diarrhoea,” it is essential that, where cholera is epidemic, arrangements should be made for affording medical relief without delay to persons attacked, even slightly, with looseness of bowels. So, again, where small-pox is the prevailing disease, it is essential that all unvaccinated persons (unless they previously have had small-pox) should very promptly be vaccinated; and re-vaccination should also be offered, both to persons above puberty who have not been vaccinated since childhood, and to younger persons whose marks of vaccination are unsatisfactory.

16. It is always to be desired that the people should, as far as possible, know what real precautions they can take against the disease which threatens them, what vigilance is needful with regard to its early symptoms, and what (if any) special arrangements have been made for giving medical assistance within the district. Especially in case of small-pox or of cholera, such information ought to be spread abroad by printed handbills or placards. In any case where danger is great, house-to-house visitation by discreet and competent persons may be of the utmost service, both in quieting unreasonable alarm, and in leading or assisting the less educated and the destitute parts of the population to do what is needful for safety.

17. The present memorandum relates to occasions of emergency. Therefore the measures suggested in it are all of an extemporaneous kind; and permanent provisions for securing the public health have not been in express terms insisted on. It is to be remembered, however, that, in proportion as a district is habitually well cared for by its sanitary authorities, the more formidable emergencies of epidemic disease are not likely to arise in it.

PROCESSES OF DISINFECTION.

N.B.—*Artificial disinfectants cannot supply the place of cleanliness, ventilation, and drainage. Their use is for exceptional purposes. The great natural disinfectant is fresh air, abundantly and uninterruptedly supplied.*

RECOMMENDATIONS BY PROFESSOR MILLER.

1. For purposes of artificial disinfection, the agents which most commonly prove useful are—chloride of lime, quicklime, and Condry's manganic compounds. Metallic salts—especially perchloride of iron, sulphate of iron, and chloride of zinc, are, under some circumstances, applicable. In certain cases, chlorine gas or sulphurous acid gas may advantageously be used; and, in certain other cases, powdered charcoal or fresh earth.

2. If perchloride of iron or chloride of zinc be used, the common concentrated solution may be diluted with eight or ten times its bulk of water. Sulphate of iron or chloride of lime may be used in the proportion of a pound to a gallon of water, taking care that the water completely dissolves the sulphate of iron, or has the chloride of lime thoroughly mixed with it. Condry's stronger fluid (red) may be diluted with fifty times its bulk of water; his weaker fluid (green) with thirty times its bulk of water. Where the matters requiring to be disinfected are matters having an offensive smell, the disinfectant should be used till this smell has entirely ceased.

3. In the *ordinary emptying of privies or cesspools*, use may be made of perchloride of iron, of chloride of zinc, or of sulphate of iron. But where disease is present, it is best to use chloride of lime, or Condyl's fluid. Where it is desirable to disinfect, before throwing away, the evacuations from the bowels of persons suffering from certain diseases, the disinfectant should be put into the night-stool or bed-pan when about to be used by the patient.

4. *Heaps of manure* or of other *filth*, if it be impossible or inexpedient to remove them, should be covered, to the depth of two or three inches, with a layer of freshly-burnt vegetable charcoal in powder. Freshly-burnt lime may be used in the same way, but is less effectual than charcoal. If neither charcoal nor lime be at hand, the filth should be covered with a layer, some inches thick, of clean dry earth.

5. *Earth, near dwellings*, if it has become offensive or foul by the soakage of decaying animal or vegetable matter, should be treated on the same plan.

6. *Drains and ditches* are best treated with chloride of lime, or with Condyl's fluid, or with perchloride of iron. A pound of good chloride of lime will generally well suffice to disinfect 1,000 gallons of running sewage; but of course the quantity of disinfectant required will depend upon the amount of filth in the fluid to be disinfected.

7. *Linen and washing apparel* requiring to be disinfected, should, without delay, be set to soak in water containing, per gallon, about an ounce either of chloride of lime or of Condyl's red fluid. The latter, as not being corrosive, is preferable. Or the articles in question may be plunged at once into boiling water, and afterwards, when at wash, be actually boiled in the washing water.

8. *Woollens, bedding, or clothing*, which cannot be washed, may be disinfected by exposure for two or more hours, in chambers constructed for the purpose, to a temperature of Fahrenheit 210—250 degrees.

9. For the disinfection of *interiors of houses*, the ceilings and walls should be washed with quick lime-water. The wood-work should be well cleansed with soap and water, and subsequently washed with a solution of chloride of lime about two ounces to the gallon.

10. *A room, no longer occupied*, may be disinfected by sulphurous acid gas, or chlorine gas:—the first, by burning in the room an ounce or two of flowers of sulphur, in a pipkin; the second, by setting in the room a dish, containing a quarter of a pound of finely powdered black oxide of manganese, over which is poured half a pint of muriatic acid previously mixed with a quarter of a pint of water. In either case, the doors, chimney, and windows of the room must be kept carefully closed during the process, which lasts for several hours.

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 FACTORIES; PRISONS; CROWDED PLACES;
 BETWEEN DECKS OF SHIPS; FEVER WARD;
 CLOTHES AND LINEN OF SICK; NIGHT-CHAIRS;
 CESSPOOLS; DRAINS; WATER-CLOSETS;
 STABLES; DAIRIES; LARDERS;
 MUSTY CASKS; TUBS, &c.;
 BUGE WATER, AND THE HOLDS OF SHIPS;
 APARTMENTS, for Searchers, Undertakers, and
 Jurymen, and for Post-mortem Examinations.

ONLY GENUINE WHEN



CAPSULED WITH TRADE MARK

DISINFECTING FLUID,

For the Prevention of

INFECTIOUS DISEASE;
 CANKER, AND FUNGUS IN TREES.

For the Disinfection of

DEAD BODIES, AND FOR THE PRESERVATION
 OF SUBJECTS FOR DISSECTION.

For the Extirmination of

BUGS AND OTHER VERMIN.

SIR WM. BURNETT'S DISINFECTING FLUID

WAS THE ONLY DISINFECTANT USED AT THE AGRICULTURAL HALL

During the Smithfield Club Cattle Show in 1866, by Order of Her Majesty's Privy Council.

The value of the Fluid is shown by the following Letter from the Secretary and Manager:—

“AGRICULTURAL HALL, ISLINGTON, 10th January, 1867.

“DEAR SIR,—Please to send us Eight Gallons more of your DISINFECTING FLUID, as per Order enclosed.

“Having used various Disinfecting Fluids at our many Shows, I can say with confidence that none have had the instantaneous and complete effect of Sir WILLIAM BURNETT'S, and this too without producing any nuisance like the smell of Chloride of Lime or Carbolic Acid.

“CAPT. JACKSON, R.N., 90, Cannon Street.

I am, yours faithfully,
 S. SIDNEY, Sec. & Manager.”

This FLUID acts directly on the essential cause of the Disease, by Destroying the peculiar local conditions of the atmosphere under which CHOLERA is most frequently developed and propagated. *For instance:—*“In a house in St. Andrew's Street, Plymouth, occupied by fifty-two persons, it was sprinkled in every room except four; in these the occupants would not permit it to be applied; the result of which was, that in those parts of the house where it had been used, not a single case of cholera subsequently occurred; while in the four rooms above alluded to, the Disease still exists, and some deaths have taken place. Two houses immediately opposite were supplied with a quantity, in neither of which has there been a single case, although the Disease is raging in the neighbourhood.”

Recommended and used by PROFESSOR SIMONDS, at the Royal Veterinary College during the last 20 Years.

Quarts, 2s.; Pints, 1s.; Half-pints, 6d.; Glass-stoppered Imperial Pints, Extra Strength, 2s.; and in Bulk, at 5s. per Gallon.

Each Gallon making 200 Gallons, when diluted with Water. See Directions on every Bottle.

N.B.—This Fluid is a certain cure for Grease in Horses, also the Scab and Rot in Sheep.

BURNETT & CO., Manufacturers, 90, CANNON STREET, LONDON, E.C.

Regulations.

- 1 Fixing No. of Persons who may occupy a house or part of a house or who is let in lodgings or occupied by members of more than one family
- 2 Regulating houses thus let
- 3 Inspection of D^o - Keeping D^o wholesome.
- 4 Enforcing privacy accor.^d to means of cleanliness in proportion to number of persons let
- 5 Cleaning & whitewashing of Hallways. (see P. 38)

V



